

Access DB# 191868**SEARCH REQUEST FORM**

Scientific and Technical Information Center

Requester's Full Name: Sm J. Lee Examiner #: 76060 Date: 6-1-06
 Art Unit: 1752 Phone Number 302-7333 Serial Number: 101774,980
 Mail Box and Bldg/Room Location: 9C15 Results Format Preferred (circle): PAPER DISK E-MAIL

Rem.)
 If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: P12. See Bib. SCIENTIFIC REFERENCE BR
 Sci & Tech Inf. Ctr.

Inventors (please provide full names): _____
 JUN 2 REC.

Earliest Priority Filing Date: _____ Pat. & T.M. Office
 For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search for a composition containing

① initiator (photoinitiator, radical initiator, photopolymerization initiator or polymerization initiator, radical generator)

② POSS (polyhedral oligomeric silsesquioxane)

(see cl. #1)

If you need to narrow down search

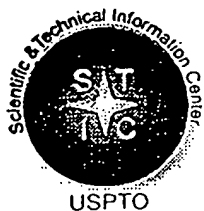
please give me a call.

STAFF USE ONLY

Type of Search

Vendors and cost where applicable

Searcher: <u>Pro</u>	NA Sequence (#) _____	STN <u>←</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr. Link _____
Date Completed: <u>6/05/06</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>30</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>72</u>	Other _____	Other (specify) _____



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- I am an examiner in Workgroup: Example: 1713
- Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

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(FILE 'HOME' ENTERED AT 14:34:18 ON 05 JUN 2006)

FILE 'REGISTRY' ENTERED AT 14:34:37 ON 05 JUN 2006

L1 STR
L2 50 SEA SSS SAM L1

FILE 'REGISTRY' ENTERED AT 14:35:04 ON 05 JUN 2006

L3 STRUCTURE
L4 50 SEA SSS SAM L3
L5 4679 SEA SSS FUL L3
SAV L5 TEMP LEE980/A

FILE 'HCAPLUS' ENTERED AT 14:46:39 ON 05 JUN 2006

L6 3434 SEA ABB=ON PLU=ON L5
L7 113424 SEA ABB=ON PLU=ON ?INITIATOR? OR RADICAL? (2A)
GENERAT?
L8 2345 SEA ABB=ON PLU=ON POLYHEDR? (2A) OLIGOMER? (2A)
SILSESQUIOXANE? OR POSS
L9 5537 SEA ABB=ON PLU=ON L6 OR L8
L10 52 SEA ABB=ON PLU=ON L9 (L) L7
L11 33 SEA ABB=ON PLU=ON L10 AND (1840-2003)/PRY,AY,PY
L12 1 SEA ABB=ON PLU=ON 2004:701381/AN
L13 1 SEA ABB=ON PLU=ON L12 AND L11
L14 3 SEA ABB=ON PLU=ON L11 AND COATING?/SC,SX
L15 15 SEA ABB=ON PLU=ON L11 AND POLYMER?/SC,SX
L16 3 SEA ABB=ON PLU=ON L11 AND PHOTOCHEM?/SC,SX
L17 20 SEA ABB=ON PLU=ON L14 OR L15 OR L16
L18 13 SEA ABB=ON PLU=ON L11 NOT L17
L19 136 SEA ABB=ON PLU=ON L9 AND L7
L20 33 SEA ABB=ON PLU=ON L19 AND COATING?/SC,SX
L21 37 SEA ABB=ON PLU=ON L19 AND POLYMER?/SC,SX
L22 26 SEA ABB=ON PLU=ON L19 AND PHOTOCHEM?/SC,SX
L23 19 SEA ABB=ON PLU=ON (L21 OR L22) AND (?LITH? OR INK? OR
?PRINT?)
L24 48 SEA ABB=ON PLU=ON L20 OR L23
L25 40 SEA ABB=ON PLU=ON L24 AND (1840-2003)/PRY,AY,PY
L26 35 SEA ABB=ON PLU=ON L25 NOT L17
L27 55 SEA ABB=ON PLU=ON L26 OR L17

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FILE 'REGISTRY' ENTERED AT 15:44:14 ON 05 JUN 2006

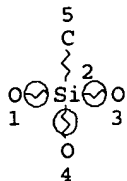
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L3 STR



NODE ATTRIBUTES:

NSPEC IS RC AT 1
NSPEC IS RC AT 2
NSPEC IS RC AT 3
NSPEC IS RC AT 4

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L5 4679 SEA FILE=REGISTRY SSS FUL L3
L6 3434 SEA FILE=HCAPLUS ABB=ON PLU=ON L5
L7 113424 SEA FILE=HCAPLUS ABB=ON PLU=ON ?INITIATOR? OR RADICAL?
(2A) GENERAT?
L8 2345 SEA FILE=HCAPLUS ABB=ON PLU=ON POLYHEDR? (2A) OLIGOMER?
(2A) SILSESQUIOXANE? OR POSS
L9 5537 SEA FILE=HCAPLUS ABB=ON PLU=ON L6 OR L8
L10 52 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 (L) L7
L11 33 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND (1840-2003)/PRY,
AY,PY
L14 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L11 AND COATING?/SC,SX
L15 15 SEA FILE=HCAPLUS ABB=ON PLU=ON L11 AND POLYMER?/SC,SX
L16 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L11 AND PHOTOCHEM?/SC,SX

L17 20 SEA FILE=HCAPLUS ABB=ON PLU=ON L14 OR L15 OR L16
L19 136 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND L7
L20 33 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 AND COATING?/SC,SX
L21 37 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 AND POLYMER?/SC,SX
L22 26 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 AND PHOTOCHEM?/SC,SX

L23 19 SEA FILE=HCAPLUS ABB=ON PLU=ON (L21 OR L22) AND
(?LITH? OR INK? OR ?PRINT?)
L24 48 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 OR L23
L25 40 SEA FILE=HCAPLUS ABB=ON PLU=ON L24 AND (1840-2003)/PRY,
AY,PY
L26 35 SEA FILE=HCAPLUS ABB=ON PLU=ON L25 NOT L17
L27 55 SEA FILE=HCAPLUS ABB=ON PLU=ON L26 OR L17

=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 15:44:24 ON 05 JUN 2006
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L27 ANSWER 1 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1016789 HCAPLUS
DOCUMENT NUMBER: 143:295619
TITLE: Organic-inorganic hybrid photocurable
compositions
INVENTOR(S): Nguyen, My T.; Nazarov, Vadym
PATENT ASSIGNEE(S): American Dye Source, Inc., Can.
SOURCE: Can. Pat. Appl., 22 pp.
CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2324794	AA	20020425	CA 2000-2324794	200010 25

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= 6664024
Cn = Pigment

PRIORITY APPLN. INFO.:

CA 2000-2324794

200010
25

<--

AB A photocurable compn. for stereolithog. is described which produces colored three-dimensional solid objects with fast speed, low degree of distortion, superior thermal stability and superior mech. properties. Thus, the compn. comprises: (1) liq. at room temp. photopolymerizable substances selected from monomers, oligomers, dendrimers and polymers, and their mixts., (2) ≥ 1 photoinitiator compd., and (3) ≥ 1 photoactivated color generating compd. The compn. may also contain functionalized, reactive silsesquioxanes. The color generating compd. can be adapted to go from essentially colorless to a given color, one given color to another or from a given color to colorless. Optionally, the resin compn. will also contain component (d), namely at least one reactive silsesquioxanes (POSS).

IC ICM G03F007-004
ICS C08G059-24; C08G077-38

CC 74-5 (Radiation Chemistry, **Photochemistry**, and Photographic and Other Reprographic Processes)

L27 ANSWER 2 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:429449 HCAPLUS

DOCUMENT NUMBER: 142:482483

TITLE: Organoborane complex-based initiator systems for polymerizable compositions

INVENTOR(S): Diakoumakos, Constantinos D.; Kotzev, Dimitar Lubomirov

PATENT ASSIGNEE(S): Huntsman Advanced Materials Switzerland G.m.b.H., Switz.

SOURCE: PCT Int. Appl., 61 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005044867	A1	20050519	WO 2004-EP52898	20041110

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, GU, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SN, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KE, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

GB 2003-26286

A

200311
11

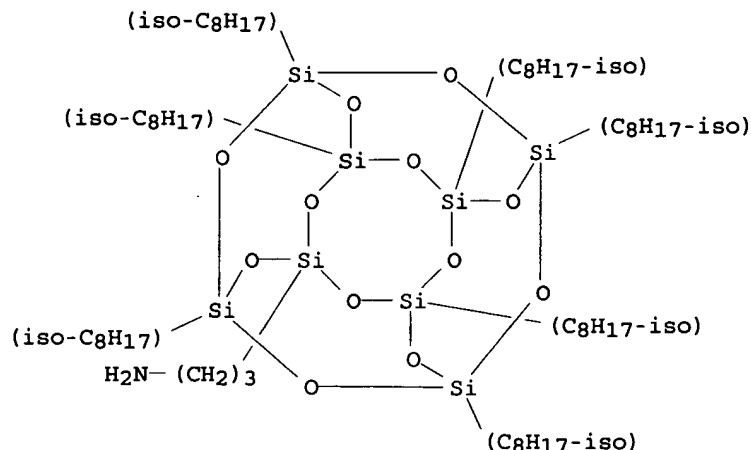
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OTHER SOURCE(S): MARPAT 142:482483

AB The present invention relates to complexes of organoboranes with amino functional organosilicon compds. which are effective polymn. initiators for radically polymerizable systems, esp. acrylate or methacrylate adhesives. The complexes are particularly useful in

the prepn. of adhesives for bonding low surface energy plastics based on, for example, polyolefins and polyfluoroolefins. Thus, 66.1% an adhesive comprising Sartomer R 203 (tetrahydrofurfuryl methacrylate) 51.66, 2-ethylhexyl methacrylate 18.96, mono-(2-methacryloyloxy)ethyl maleate 13.06, Blendex 360 10.30, Aerosil 200 0.86, and Fillite 160W (ceramic cenosphere) 5.16% and 33.9% an organoborane complex obtained from triethylborane and KF 857 (amino-contg. polysiloxane) were mixed and applied between polypropylene films, showing adhesion strength 3.32 MPa.

IT 444619-07-2DP, AM 0270, complexes with boranes
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)
 (AminopropylIsooctyl-POSS, AM 0270; organoborane
 complex-based initiator systems for polymerizable
 compns. useful for adhesives)
 RN 444619-07-2 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanepropanamine,
 3,5,7,9,11,13,15-heptaisooctyl- (9CI) (CA INDEX NAME)



IC ICM C08F004-58
 ICS C07F007-21
 CC 35-3 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 38
 IT 444619-07-2DP, AM 0270, complexes with boranes
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)
 (AminopropylIsooctyl-POSS, AM 0270; organoborane
 complex-based initiator systems for polymerizable
 compns. useful for adhesives)
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN
 THE RE FORMAT

L27 ANSWER 3 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:340538 HCAPLUS
 DOCUMENT NUMBER: 142:393434
 TITLE: Polyamic acid ester compositions with low
 residual stress and polyimide patterning method
 using them
 INVENTOR(S): Hanahata, Hiroyuki
 PATENT ASSIGNEE(S): Asahi Kasei Electronics Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese

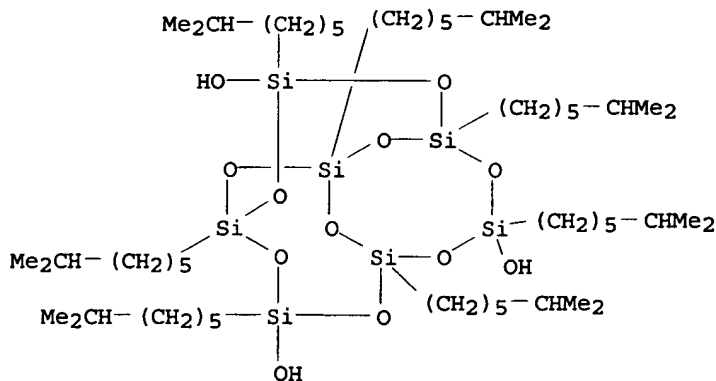
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005105011	A2	20050421	JP 2003-336536	20030926
			<--	
PRIORITY APPLN. INFO.:			JP 2003-336536	20030926
			<--	

AB The compns., useful for semiconductor devices, **printed** circuit boards, etc., contain (A) 100 parts polyamic acid esters contg. repeating units of COW(CO2T1)(CO2T2)CONHVN (W = C6-23 arom. group, V = C4-30 org. group, T1,2 = monovalent group having olefinic double bonds) and (B) 0.1-90 parts silsesquioxanes of cage structures and/or their partially cleaved structures. The patterning method includes coating the compns. on substrates, drying to give films, exposing patterns with UV, removing nonexposed parts with solvents, and heating to give polyimide patterns. Thus, a compn. contg. a polyamic acid ester manufd. from 4,4'-oxydiphthalic acid dianhydride, 2-hydroxyethyl methacrylate, 4,4'-diaminodiphenyl ether, an **photoinitiator**, and silsesquioxane oligomer triol having iso-octyl and aminopropyl substituents was cured to give a polyimide film showing residual stress 10.3 MPa and good resoln. after patterning.

IT **480439-50-7D**, reaction products with 3-aminopropyltriethoxysilane
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(silsesquioxane-contg. polyamic acid ester compns. with low residual stress for photoresists)

RN **480439-50-7 HCAPLUS**
CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol, 1,3,5,7,9,11,14-heptakis(6-methylheptyl)- (9CI) (CA INDEX NAME)



IC ICM C08L079-04
ICS C08L083-04; G03F007-027; G03F007-075
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 74
IT 111451-23-1
RL: CAT (Catalyst use); USES (Uses)
(**photoinitiator**; silsesquioxane-contg. polyamic acid ester compns. with low residual stress for photoresists)

IT 919-30-2D, 3-Aminopropyltriethoxysilane, reaction products with

silsesquioxane oligomers 480439-50-7D, reaction products
 with 3-aminopropyltriethoxysilane
 RL: MOA (Modifier or additive use); TEM (Technical or engineered
 material use); USES (Uses)
 (silsesquioxane-contg. polyamic acid ester compns. with low
 residual stress for photoresists)

L27 ANSWER 4 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:284105 HCAPLUS

DOCUMENT NUMBER: 142:365659

TITLE: Direct photo-patterning of nanoporous
 organosilicates for low dielectric constant
 materials

INVENTOR(S): Miller, Robert Dennis; Kim, Ho-Cheol; Connor,
 Eric; Lee, Victor Yee-Way; Wallraff, Gregory
 Michael; Volksen, Willi

PATENT ASSIGNEE(S): International Business Machines Corporation, USA

SOURCE: U.S. Pat. Appl. Publ., 15 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005070124	A1	20050331	US 2003-676422	200309 30
			US 2003-676422	200309 30

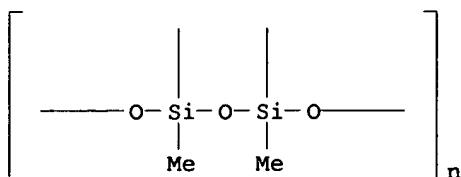
PRIORITY APPLN. INFO.:

AB A method for obtaining a low dielec. const., patterned, nanoporous material is disclosed. The material is formed by depositing a layer onto a substrate, said layer comprising a reactive organosilicate material, a porogen, an initiator, and a solvent; exposing portions of the layer to energy (e.g., thermal energy or electromagnetic radiation) to change the soly. of portions of the organosilicate material with respect to the solvent; selectively removing more sol. portions of the layer to generate a relief pattern; and decomp. the porogen to thereby generate a nanoporous organosilicate layer. The organosilicate preferably includes silsesquioxane RSiO_{1.5} units where R is independently H, Me, Et or higher alkyl, vinyl, aryl, Ph or substituted Ph group. The porogen is preferably a star polymer, multiarm radial block copolymer with amphiphilic structure, or a crosslinked nanoparticle with a nonpolar hydrophobic core and polar polymer hydrophilic corona.

IT 153315-80-1, Methylsilanetriol homopolymer, ladder sru
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (direct photo-patterning of nanoporous organosilicates using porogens for low dielec. const. materials)

RN 153315-80-1 HCAPLUS

CN Poly[(1,3-dimethyl-1,3,1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI)
 (CA INDEX NAME)



IC ICM H01L021-31

INCL 438780000

CC 76-10 (Electric Phenomena)

Section cross-reference(s): 38, 74

IT Photolithography

(patterning; direct photo-patterning of nanoporous organosilicates using porogens for low dielec. const. materials)

IT 104133-11-1, Methylsilanetriol homopolymer 153315-80-1,

Methylsilanetriol homopolymer, ladder sru

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(direct photo-patterning of nanoporous organosilicates using porogens for low dielec. const. materials)

L27 ANSWER 5 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:74164 HCAPLUS

DOCUMENT NUMBER: 142:178756

TITLE: Polyurethane-polymer hybrid dispersion with enhanced surface properties, method for the production and utilization thereof.

INVENTOR(S): Maier, Alois; Ingrisich, Stefan; Steidl, Norbert; Weinelt, Frank

PATENT ASSIGNEE(S): Construction Research & Technology G.m.b.H., Germany

SOURCE: PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005007762	A1	20050127	WO 2004-EP7592	20040709
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10331484	A1	20050303	DE 2003-10331484	20030711
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EP 1656428	A1	20060517	EP 2004-740871	

200407
09

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

PRIORITY APPLN. INFO.: DE 2003-10331484 A

200307
11

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WO 2004-EP7592 W

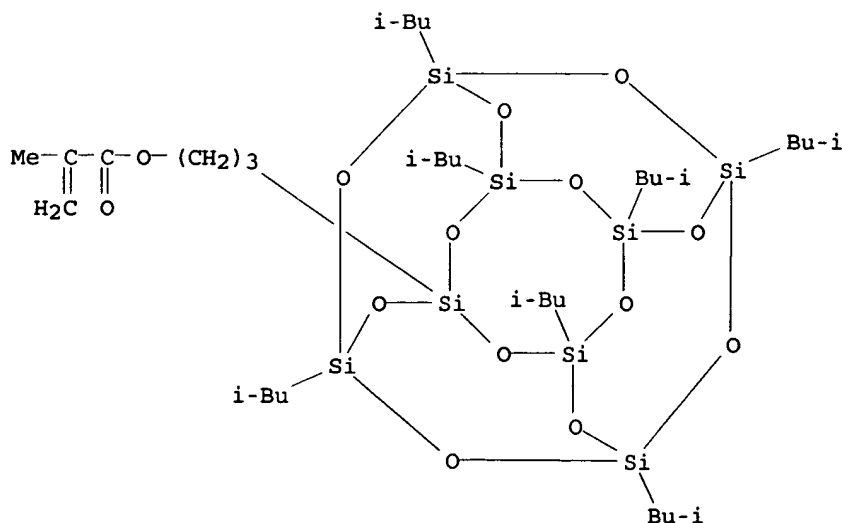
200407
09

AB Antisoiling, water-resistant, one- and two-component coating materials based on fluorinated polyurethane-polymer hybrid dispersion with enhanced surface properties (low crit. surface stresses γ_c and a very high contact angle θ) prepd. by (a) producing a dispersion component (binder) based on an aq. soln. or dispersion of an optionally hydroxy and/or amino-functional polyurethane-polymer hybrid with optionally fluorinated side chains and optionally (b) crosslinking the resulting dispersion component. A dispersion of an optionally hydroxy and/or amino-functional polyurethane-polymer is prepd. by reacting F-contg. anionic-stabilized polyurethane dispersion with (meth)acrylic and arom. monomers or polyimg. F-contg. unsatd. monomers with other (meth)acrylic monomers. Thus, a radical polymn. of a mixt. contg. 400 g of F-modified polyurethane dispersion (having F-content 0.64 wt.% and solid content 38%), 72.12 g of water, 20.27 g of Bu acrylate, 81.07 g of MMA and 1.27 g of an initiator 5 h at 80 - 85° gave a fluorinated polyurethane-polymer hybrid dispersion having solid content 45 wt.%.

IT 307531-94-8DP, reaction products with perfluoroalkyl group-contg. polyurethanes and acrylic monomers
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(crosslinked coating; antisoiling, water-resistant coating materials based on fluorinated polyurethane-polymer hybrid dispersion with enhanced surface properties)

RN 307531-94-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[heptakis(2-methylpropyl)pentacyclo[9.5.1.13.9.15,15.17,13]octasiloxanyl]propyl ester (9CI) (CA INDEX NAME)



IC ICM C09D175-04
 ICS C08G018-08; C08F283-00
 CC 42-7 (Coatings, Inks, and Related Products)
 IT 80-62-6DP, Methyl methacrylate, reaction products with perfluoroalkyl group-contg. polyurethanes 141-32-2DP, Butyl acrylate, reaction products with perfluoroalkyl group-contg. polyurethanes 1996-88-9DP, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-Heptadecafluorodecyl methacrylate, reaction products with perfluoroalkyl group-contg. polyurethanes and acrylic monomers 2144-53-8DP, 3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctyl methacrylate, reaction products with perfluoroalkyl group-contg. polyurethanes and acrylic monomers 307531-94-8DP, reaction products with perfluoroalkyl group-contg. polyurethanes and acrylic monomers
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (crosslinked coating; antisoiling, water-resistant coating materials based on fluorinated polyurethane-polymer hybrid dispersion with enhanced surface properties)
 REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 6 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:33088 HCAPLUS
 DOCUMENT NUMBER: 142:116116
 TITLE: Radiation curable powder painting compositions and their use.
 INVENTOR(S): Wenning, Andreas; Schmidt, Friedrich Georg; Kuehnle, Adolf; Jost, Carsten; Wouters, Marielle; Van Bracht, Henk
 PATENT ASSIGNEE(S): Degussa AG, Germany
 SOURCE: Eur. Pat. Appl., 18 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1496084	A1	20050112	EP 2004-102095	20040513
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
DE 10331794	A1	20050203	DE 2003-10331794	20030711
CA 2474426	AA	20050111	CA 2004-2474426	20040709
US 2005009945	A1	20050113	US 2004-887103	20040709
AU 2004203106	A1	20050127	AU 2004-203106	20040709
JP 2005029799	A2	20050203	JP 2004-204853	

200407
12

PRIORITY APPLN. INFO.:

DE 2003-10331794

A

200307
11

AB Addn. of silsesquioxanes to a compn. for manuf. of UV-curable hydrophobic powder coating materials [comprising a binder having ≥ 1 UV-curable compd., such as amorphous or/and (semi)cryst. polyurethane-acrylate, and ≥ 1 compd. having polyhedral SiO clusters, such as silsesquioxanes] increases a glass transition temp. without changing mech. properties of that coating. Thus, mixing a compn. contg. 850 g of an amorphous polyurethane acrylate (prepd. by heating a mixt. from isophthalic acid, monoethylene glycol, neopentyl glycol and cyclohexandimethanol at 190° in the presence of a catalyst, adding an adduct of IPDI and hydroxyethyl acrylate and a catalyst and heating 1 h at 190°), 150 g of a cryst. polyurethane acrylate (prepd. by heating of dodecanedioic acid, monoethylene glycol at 190° in the presence of a catalyst, adding an adduct of IPDI and hydroxyethyl acrylate and a catalyst and heating 1 h at 190°), 50 g of a silsesquioxane (prepd. by hydrolytic polymn. of isobutyltrimethoxysilane), photoinitiator and other additives at 130°, cooling and milling to a particle size $< 100 \mu\text{m}$ gave a powder having glass transition temp. 30°, which was sprayed onto a steel sheet and exhibits after curing an Erichsen indentation $> 10 \text{ mm}$ and a hardness 172 s according DIN 53 156.

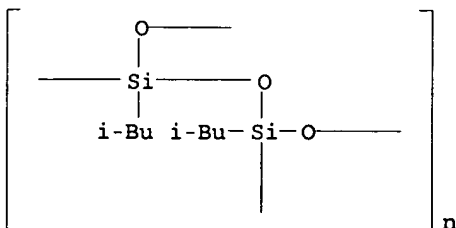
IT 180604-53-9P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(silsesquioxane; addn. of silsesquioxane to radiation curable powder lacquer compns. to increase a glass transition temp.)

RN 180604-53-9 HCAPLUS

CN Poly[[1,3-bis(2-methylpropyl)-1,3:1,3-disiloxanediylidene]-1,3-bis(oxy)] (9CI) (CA INDEX NAME)



IC ICM C08K005-549

ICS C09D005-03

CC 42-7 (Coatings, Inks, and Related Products)

IT 180537-00-2P, Isobutyltrimethoxysilane homopolymer

180604-53-9P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(silsesquioxane; addn. of silsesquioxane to radiation curable powder lacquer compns. to increase a glass transition temp.)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 7 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:957242 HCAPLUS
 DOCUMENT NUMBER: 141:396513
 TITLE: Curable polysiloxane-based composition and transparent substrate bearing cured film of the composition
 INVENTOR(S): Ochiai, Shinsuke
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004314468	A2	20041111	JP 2003-112513	20030417

PRIORITY APPLN. INFO.: JP 2003-112513
 20030417

AB The transparent substrate has on the surface a cured film of the compn. comprising 15-80 parts polysiloxanes contg. polymerizable functional groups and 20-85 parts compds. contg. ≥ 2 polymerizable functional groups, and optionally, ≤ 400 parts (outer parts ratio) SiO_2 fine particles. Thus, a compn. comprised an epoxycyclohexyl-modified silicone oil (X 22-169B) 18, oxetanylsilsesquioxane prep. by hydrolytic condensation of 3-ethyl-3-[[3-(ethoxysilyl)propoxy]methyl]oxetane 18, a 20%-solid sol of SiO_2 fine particles coated with hydrolytic polycondensate of $\text{Si}(\text{OEt})_4$ 275, p-cumyl-p-tolyliodonium tetrakis(pentafluorophenyl) borate (Rhodorsil Photoinitiator 2074) 3, i-PrOH 4180, and 2-butoxyethanol 500 parts. A sheet of .apprx.60:40 Me methacrylate-styrene copolymer (Acryace MS) was dipped in the compn., dried, and exposed to UV to give an antireflective transparent substrate bearing 112-nm thick coating with high friction resistance.

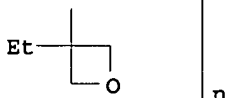
IT 220690-86-8
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (curable polysiloxane-based compn. for antireflective coating on transparent substrate)

RN 220690-86-8 HCAPLUS

CN Poly[[1,3-bis[3-[(3-ethyl-3-oxetanyl)methoxy]propyl]-1,3:1,3-disiloxanediylidene]-1,3-bis(oxy)] (9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

PAGE 2-A



IC ICM B32B027-00
 ICS B05D005-06; B05D007-24; C08F290-06; C08F290-14; C09D004-00;
 C09D005-00; C09D163-00; C09D171-00; C09D183-04; G02B001-10;
 G02B001-11
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 42
 IT 31900-57-9D, Dimethylsilanediol homopolymer, epoxycyclohexyl-
 terminated 192120-80-2, X 22-169B 220690-84-6
 220690-86-8
 RL: POF (Polymer in formulation); TEM (Technical or engineered
 material use); USES (Uses)
 (curable polysiloxane-based compn. for antireflective coating on
 transparent substrate)

L27 ANSWER 8 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:756725 HCAPLUS
 DOCUMENT NUMBER: 141:278049
 TITLE: Silicone compounds having polymerization
 initiator capability to additional polymerizable
 monomers
 INVENTOR(S): Yamahiro, Mikio; Oikawa, Hisao; Ito, Kenya;
 Yamamoto, Yasuhiro; Tanaka, Masami; Ootake,
 Nobumasa; Watanabe, Kenichi; Ohno, Kohji;
 Tsujii, Yoshinobu; Fukuda, Takeshi
 PATENT ASSIGNEE(S): Chisso Corporation, Japan
 SOURCE: PCT Int. Appl., 142 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
----- -----	---	-----	-----	
WO 2004078767	A1	20040916	WO 2004-JP2809	200403

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 BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO,
 CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE,
 EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU,
 HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR,
 KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD,
 MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI
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 IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG,
 CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BF, BJ, CF,
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PRIORITY APPLN. INFO.:

JP 2003-62135

A

200303

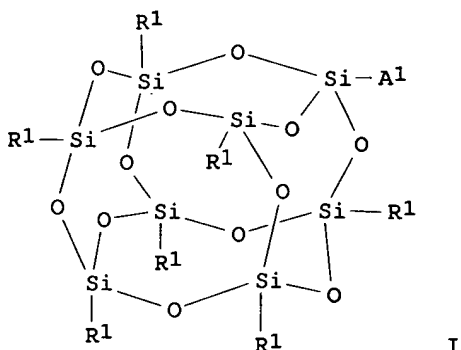
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OTHER SOURCE(S):

MARPAT 141:278049

GI



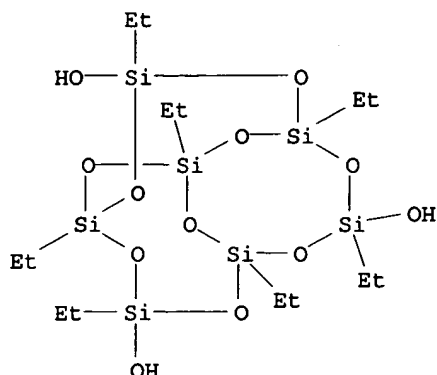
AB The invention provides silicone compds. I and polymers made by using the same, which brings about org.-inorg. composite materials having definite structures and makes it possible to control the structure of the polymers as mol. aggregate, wherein R1 = independently H, C1-40 alkyl, (un)substituted aryl, and (un)substituted arylalkyl (any hydrogen may be replaced by fluorine in C1-40 alkyl and CH2 group may be replaced by O, CH:CH, cycloalkylene, or cycloalkenylene and any hydrogen may be replaced by fluorine in alkylene of arylalkyl and any CH2 group may be replaced by O or CH:CH in arylalkylene) and A1 = an α -halo ester linkage-contg. group. Thus, 211.5 g trichlorosilane was reacted, sodium hydroxide was added therein and reacted, 2-acetoxyethyltrichlorosilane was added therein and reacted, methanolized, and reacted with 2-bromo-2-methylpropionyl bromide to give 2-bromo-2-methylpropionyloxyethyl-heptaphenyloctasilsesquioxane, 1 mol of which was mixed with styrene 500, L-(-)sparteine 1, and copper(I) bromide 1 mol in di-Ph ether and polymd. at 110° for 1 h to give a polymer with Mn 3700 and polydispersity 1.14.

IT 326621-07-2, Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol, 1,3,5,7,9,11,14-heptaethyl-

RL: RCT (Reactant); RACT (Reactant or reagent)
 (TriSilanolEthyl-POSS; prepn. of silicone compds.
 having polymn. initiator capability to addnl.
 polymerizable monomers)

RN 326621-07-2 HCAPLUS

CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
1,3,5,7,9,11,14-heptaethyl- (9CI) (CA INDEX NAME)

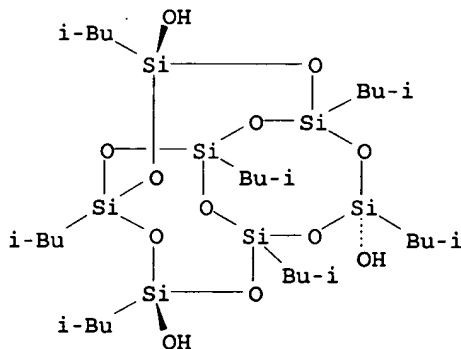


IT 255062-79-4, Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol, 1,3,5,7,9,11,14-heptakis(2-methylpropyl)-, stereoisomer
RL: RCT (Reactant); RACT (Reactant or reagent)
(TriSilanolIsobutyl-POSS; prepn. of silicone compds.
having polymn. initiator capability to addnl.
polymerizable monomers)

RN 255062-79-4 HCAPLUS

CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
1,3,5,7,9,11,14-heptakis(2-methylpropyl)-, stereoisomer (9CI) (CA
INDEX NAME)

Relative stereochemistry.



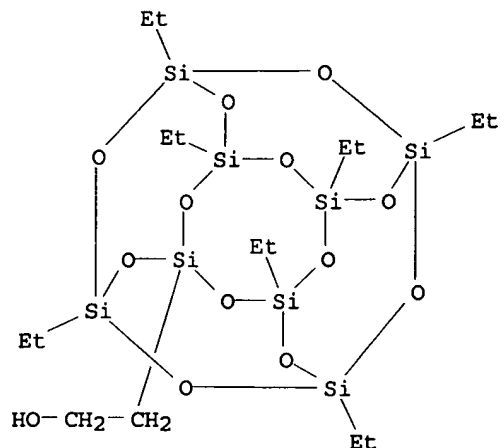
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757198-90-6P 757198-92-8P 757198-94-0P
757198-96-2P 757198-98-4P 757199-00-1P
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757199-09-0P 757199-11-4P 757199-13-6P
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757199-28-3P 757199-31-8P 757199-34-1P
757199-40-9P 757199-42-1P 757199-44-3P
757199-46-5P 757212-06-9P 757212-07-0P
757212-08-1P 757212-09-2P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP
(Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of silicone compds. having polymn.)

initiator capability to addnl. polymerizable monomers)

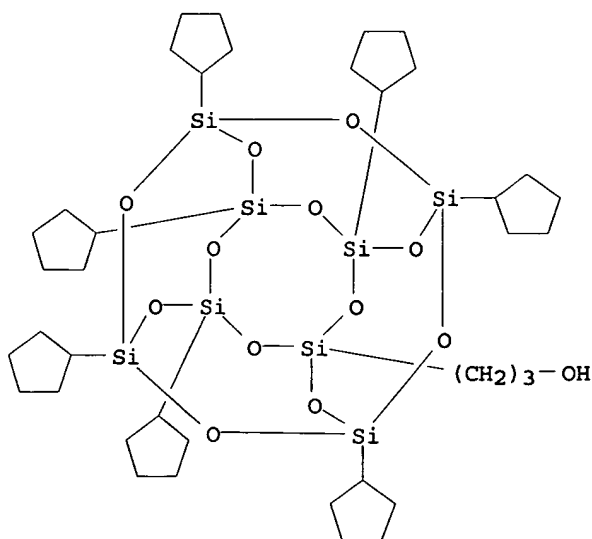
RN 244096-50-2 HCAPLUS

CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxaneethanol,
3,5,7,9,11,13,15-heptaethyl- (9CI) (CA INDEX NAME)



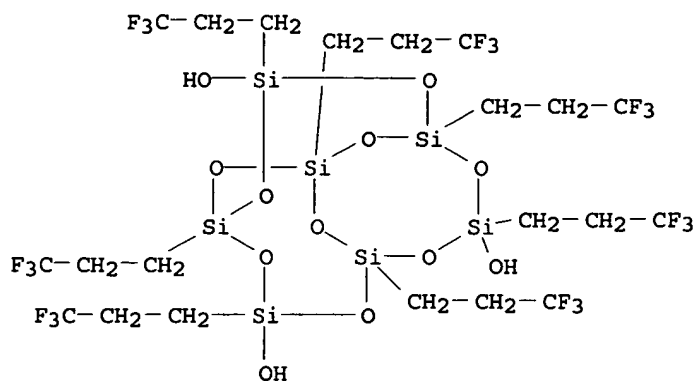
RN 352538-66-0 HCAPLUS

CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanepropanol,
3,5,7,9,11,13,15-heptacyclopentyl- (9CI) (CA INDEX NAME)

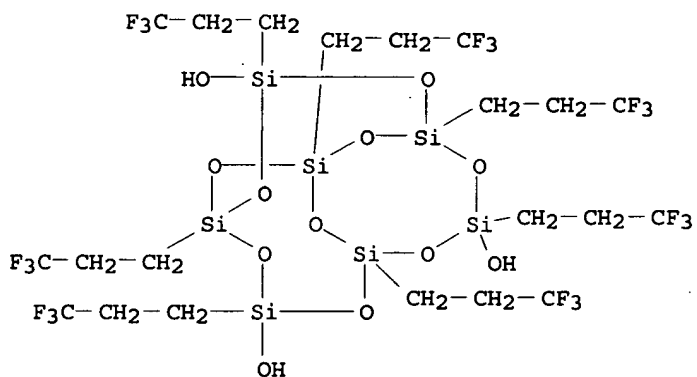


RN 656800-09-8 HCAPLUS

CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
1,3,5,7,9,11,14-heptakis(3,3,3-trifluoropropyl)- (9CI) (CA INDEX
NAME)

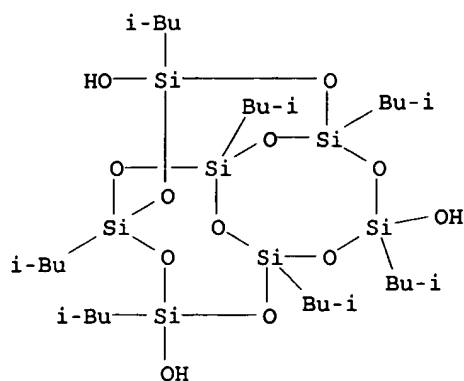


RN 656800-11-2 HCAPLUS
 CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
 1,3,5,7,9,11,14-heptakis(3,3,3-trifluoropropyl)-, trisodium salt
 (9CI) (CA INDEX NAME)



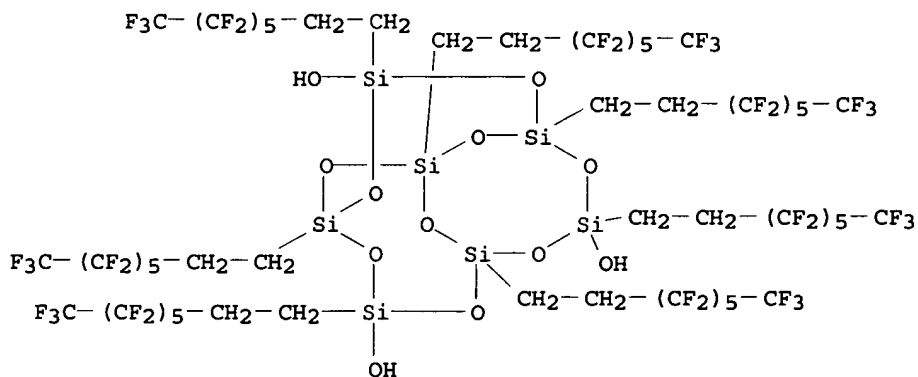
●3 Na

RN 656800-14-5 HCAPLUS
 CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
 1,3,5,7,9,11,14-heptakis(2-methylpropyl)-, trisodium salt (9CI) (CA
 INDEX NAME)

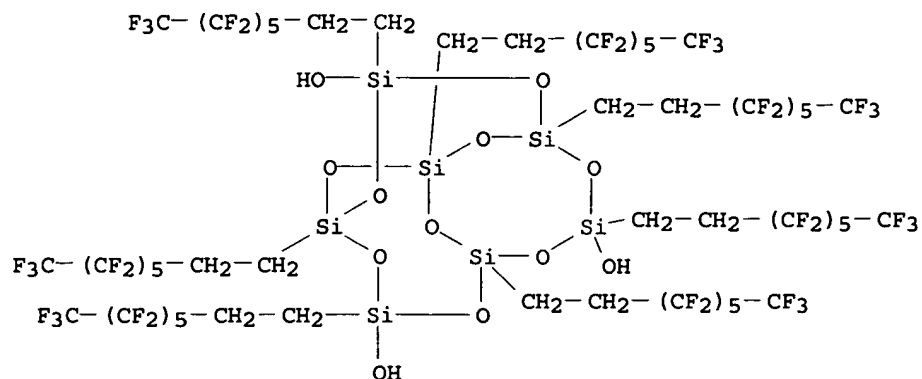


●3 Na

RN 656800-15-6 HCAPLUS
 CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
 1,3,5,7,9,11,14-heptakis(3,3,4,4,5,5,6,6,7,7,8,8,8-
 tridecafluorooctyl)- (9CI) (CA INDEX NAME)

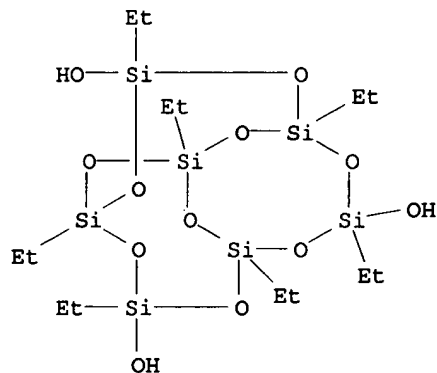


RN 656800-17-8 HCAPLUS
 CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
 1,3,5,7,9,11,14-heptakis(3,3,4,4,5,5,6,6,7,7,8,8,8-
 tridecafluorooctyl)-, trisodium salt (9CI) (CA INDEX NAME)



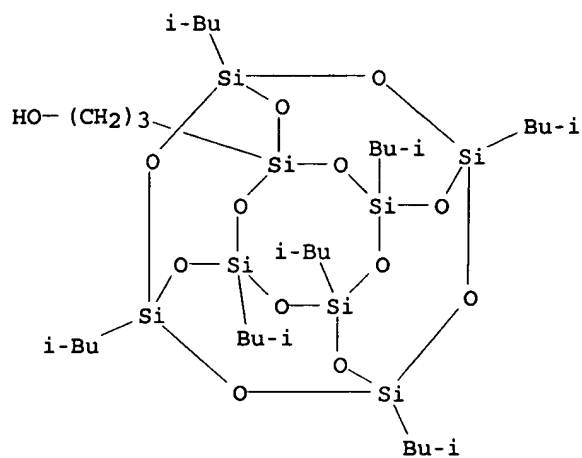
●3 Na

RN 660392-76-7 HCAPLUS
 CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
 1,3,5,7,9,11,14-heptaethyl-, trisodium salt (9CI) (CA INDEX NAME)

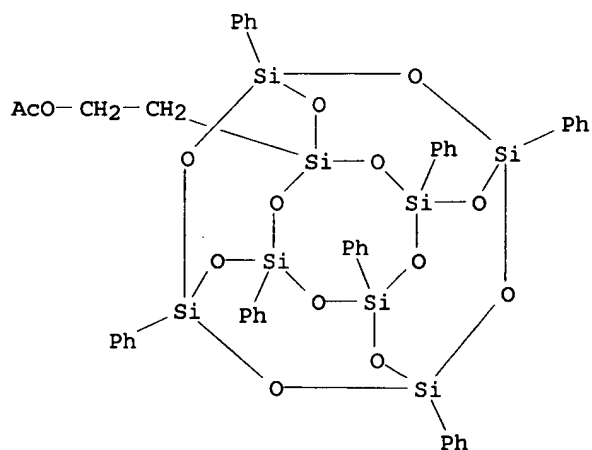


●3 Na

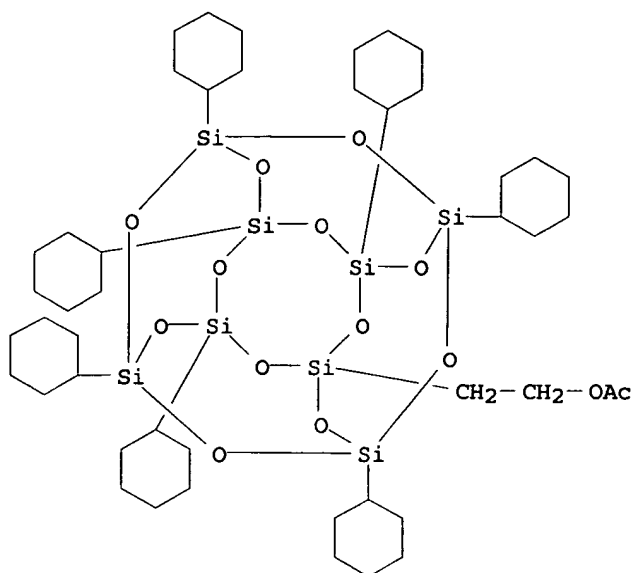
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 3,5,7,9,11,13,15-heptakis(2-methylpropyl)- (9CI) (CA INDEX NAME)



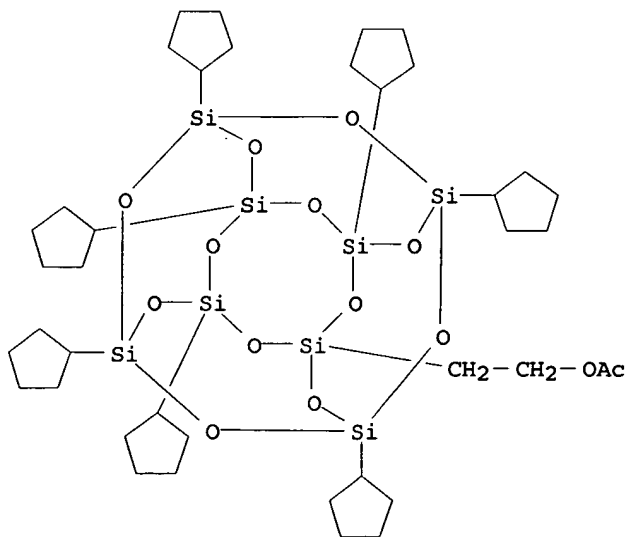
RN 757198-90-6 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxaneethanol,
 3,5,7,9,11,13,15-heptaphenyl-, acetate (9CI) (CA INDEX NAME)



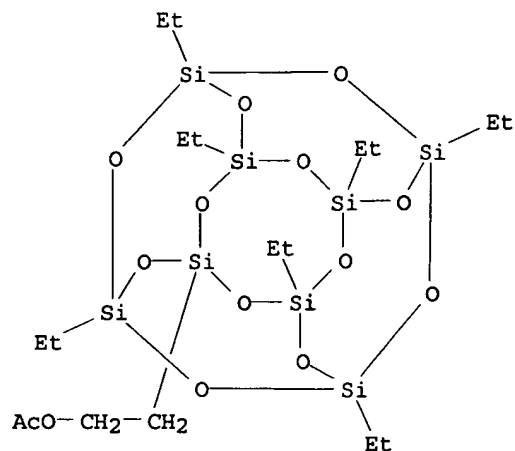
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 3,5,7,9,11,13,15-heptacyclohexyl-, acetate (9CI) (CA INDEX NAME)



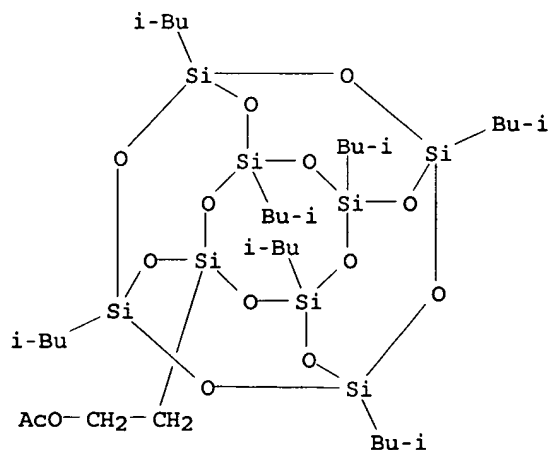
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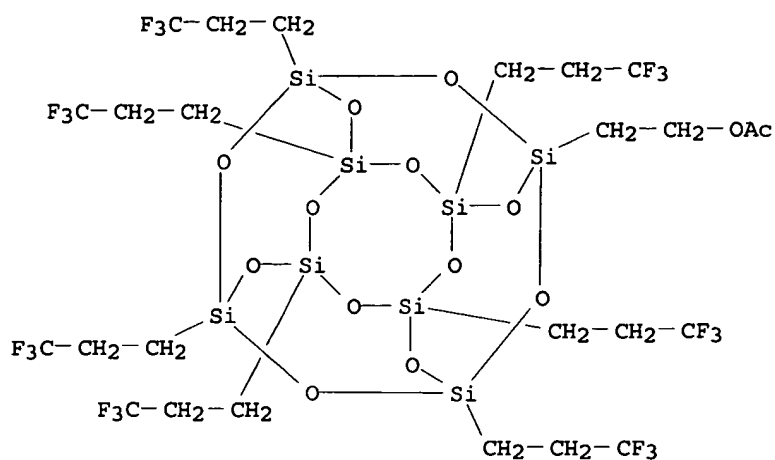
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 3,5,7,9,11,13,15-heptaethyl-, acetate (9CI) (CA INDEX NAME)



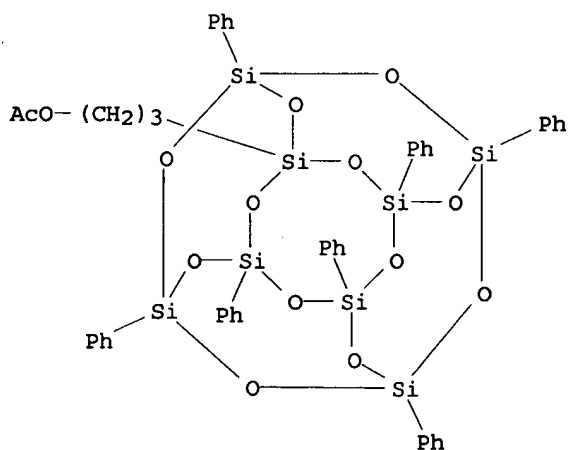
RN 757198-98-4 HCAPLUS
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 3,5,7,9,11,13,15-heptakis(2-methylpropyl)-, acetate (9CI) (CA INDEX
 NAME)



RN 757199-00-1 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxaneethanol,
 3,5,7,9,11,13,15-heptakis(3,3,3-trifluoropropyl)-, acetate (9CI)
 (CA INDEX NAME)

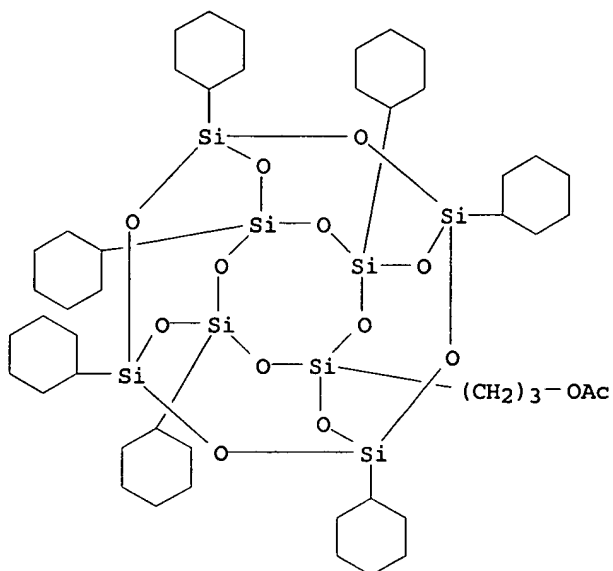


RN 757199-03-4 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanepropanol,
 3,5,7,9,11,13,15-heptaphenyl-, acetate (9CI) (CA INDEX NAME)



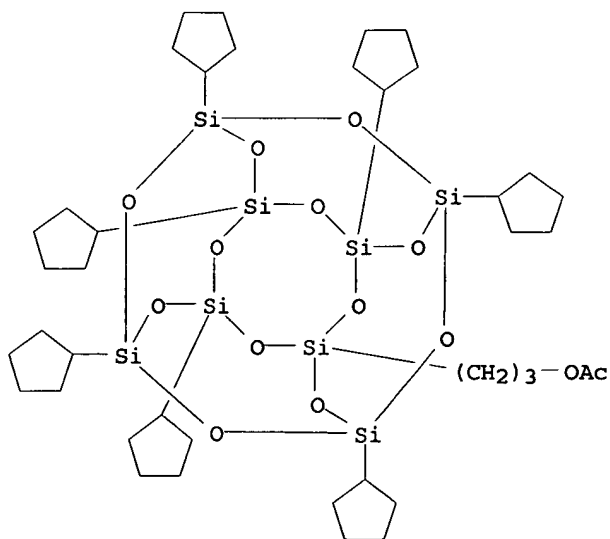
RN 757199-05-6 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanepropanol,
 3,5,7,9,11,13,15-heptacyclohexyl-, acetate (9CI) (CA INDEX NAME)

PAGE 1-A

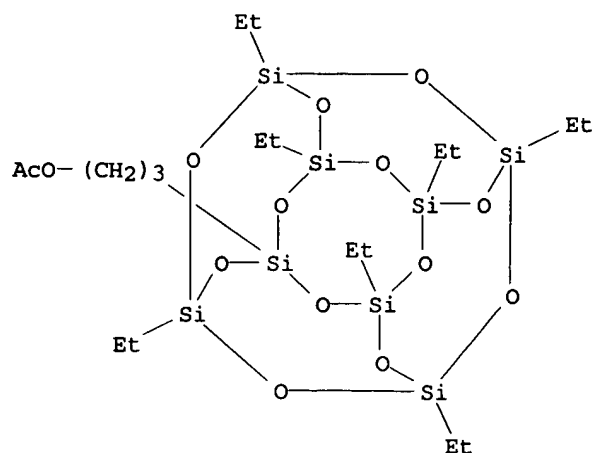


PAGE 2-A

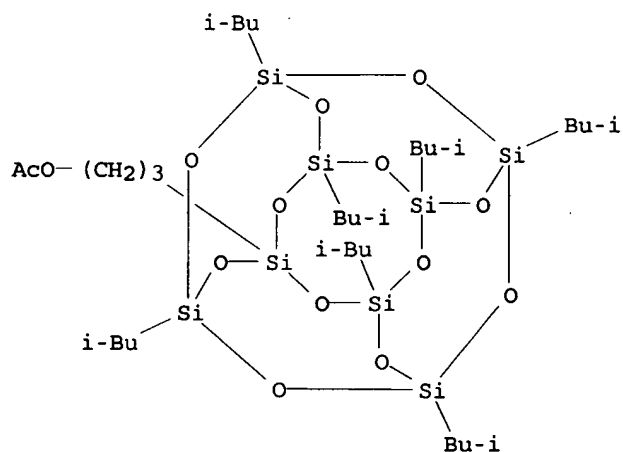
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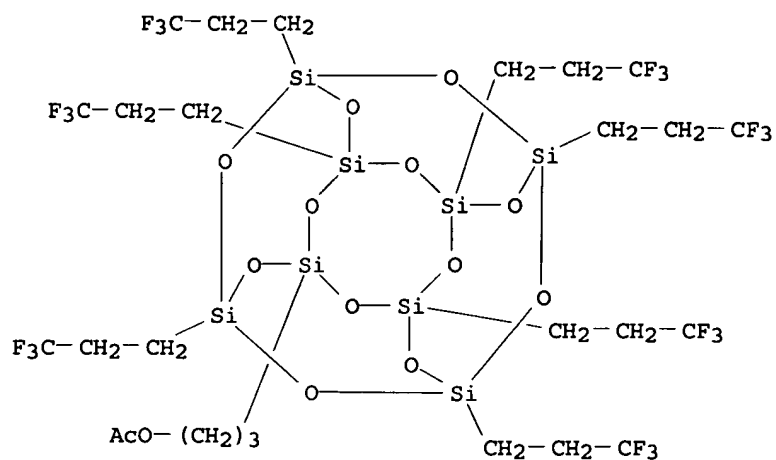
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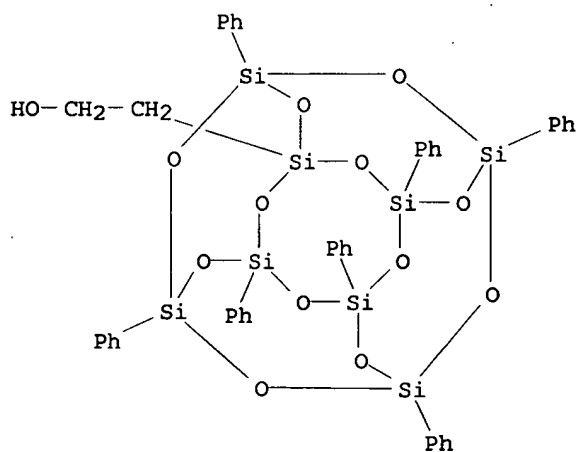
RN 757199-11-4 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanepropanol,
 3,5,7,9,11,13,15-heptakis(2-methylpropyl)-, acetate (9CI) (CA INDEX
 NAME)



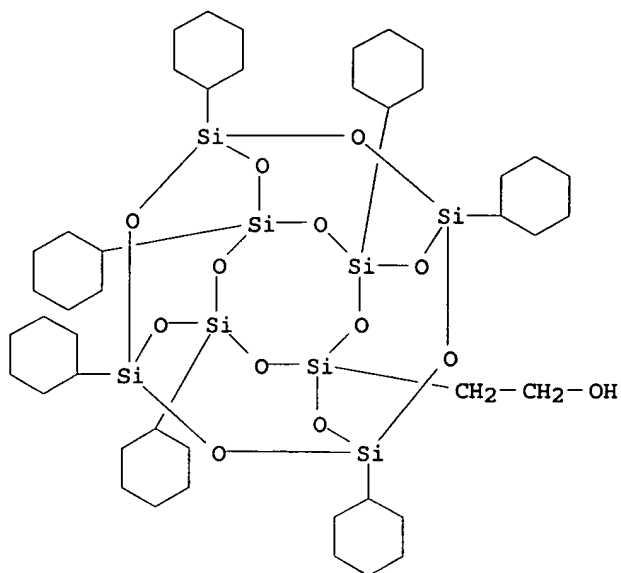
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 (CA INDEX NAME)



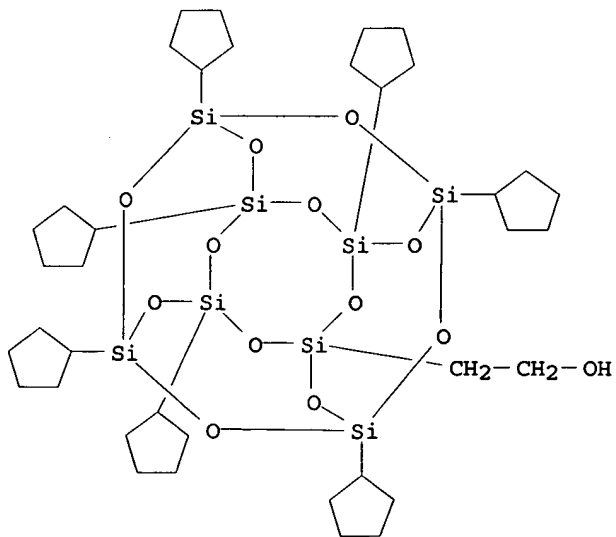
RN 757199-15-8 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxaneethanol,
 3,5,7,9,11,13,15-heptaphenyl- (9CI) (CA INDEX NAME)



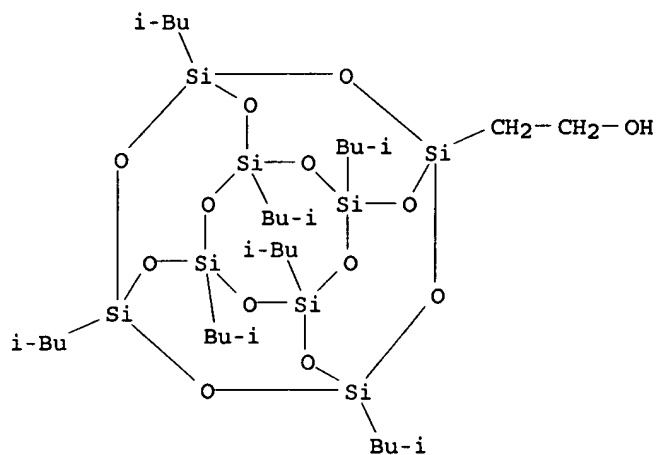
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 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxaneethanol,
 3,5,7,9,11,13,15-heptacyclohexyl- (9CI) (CA INDEX NAME)



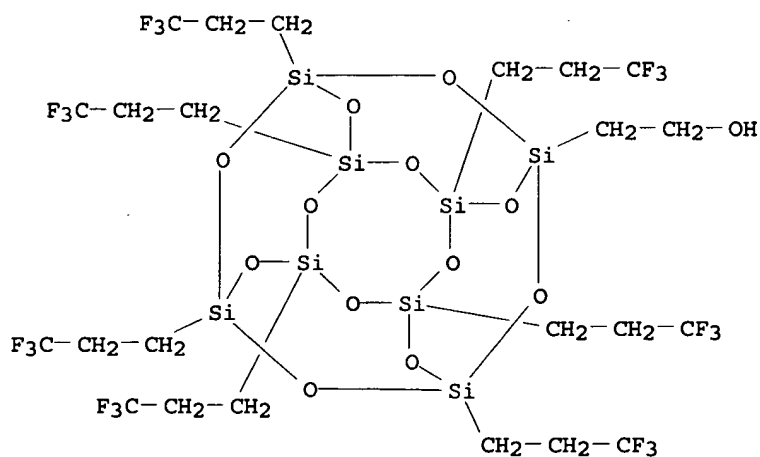
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 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxaneethanol,
 3,5,7,9,11,13,15-heptacyclopentyl- (9CI) (CA INDEX NAME)



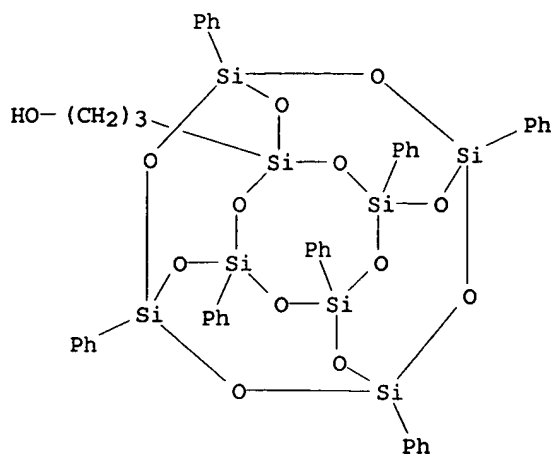
RN 757199-22-7 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxaneethanol,
 3,5,7,9,11,13,15-heptakis(2-methylpropyl)- (9CI) (CA INDEX NAME)



RN 757199-24-9 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxaneethanol,
 3,5,7,9,11,13,15-heptakis(3,3,3-trifluoropropyl)- (9CI) (CA INDEX
 NAME)

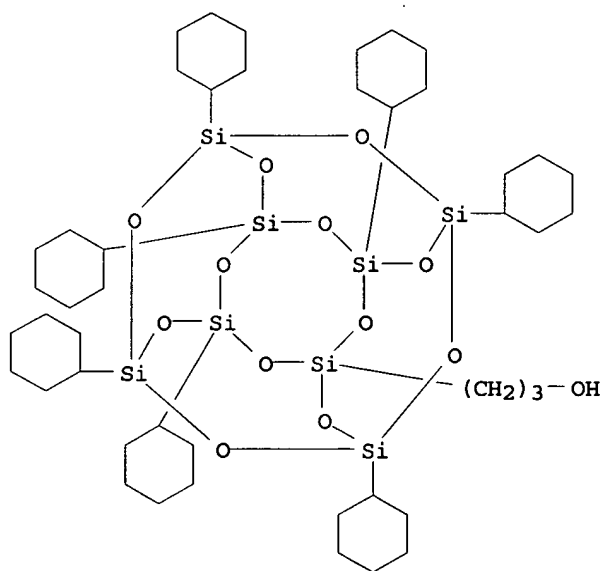


RN 757199-26-1 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanepropanol,
 3,5,7,9,11,13,15-heptaphenyl- (9CI) (CA INDEX NAME)



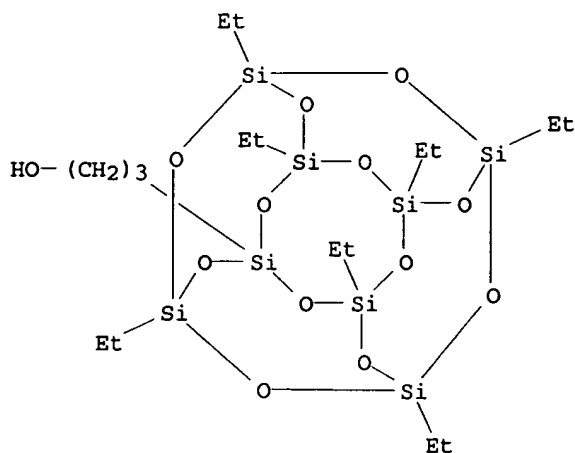
RN 757199-28-3 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanepropanol,
 3,5,7,9,11,13,15-heptacyclohexyl- (9CI) (CA INDEX NAME)

PAGE 1-A



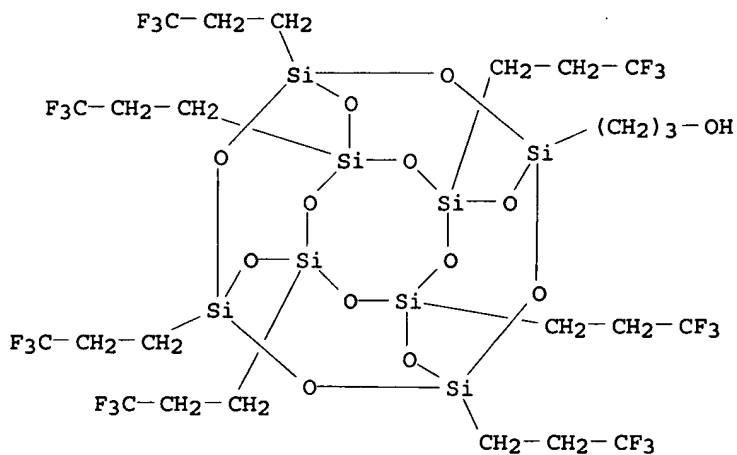
PAGE 2-A

RN 757199-31-8 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanepropanol,
 3,5,7,9,11,13,15-heptaethyl- (9CI) (CA INDEX NAME)



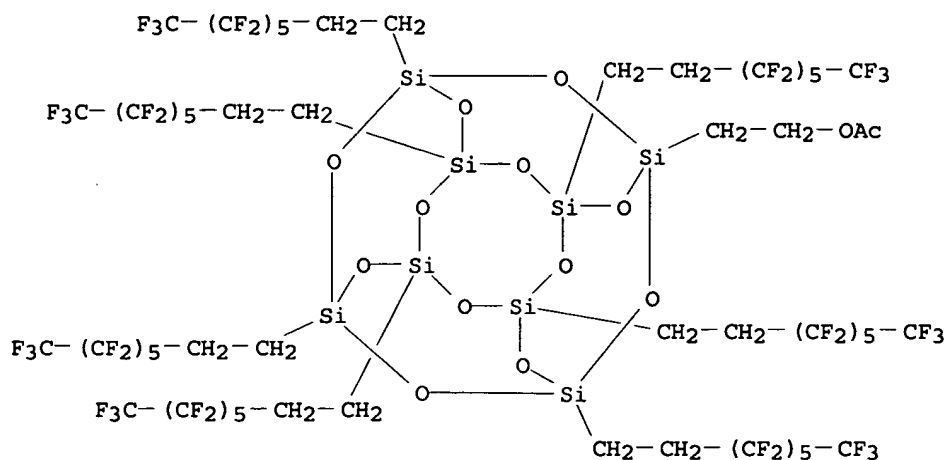
RN 757199-34-1 HCAPLUS

CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanepropanol,
3,5,7,9,11,13,15-heptakis(3,3,3-trifluoropropyl)-(9CI) (CA INDEX
NAME)



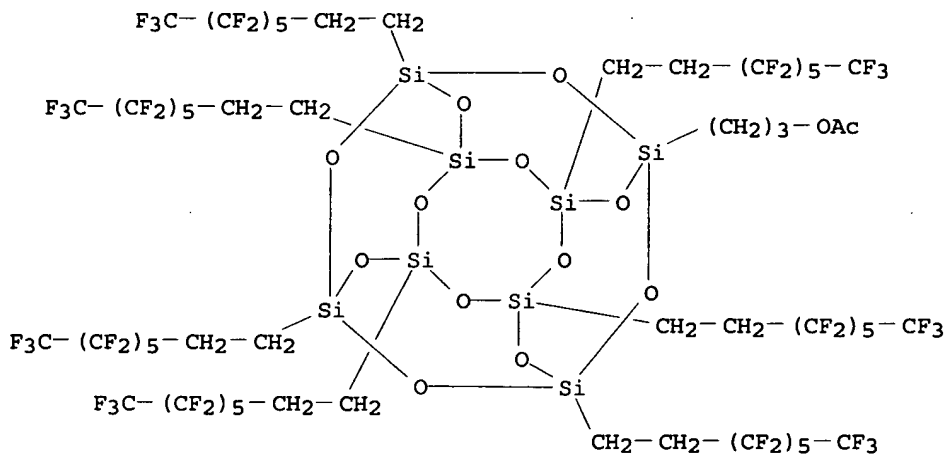
RN 757199-40-9 HCAPLUS

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3,5,7,9,11,13,15-heptakis(3,3,4,4,5,5,6,6,7,7,8,8,8-
tridecafluorooctyl)-, acetate (9CI) (CA INDEX NAME)



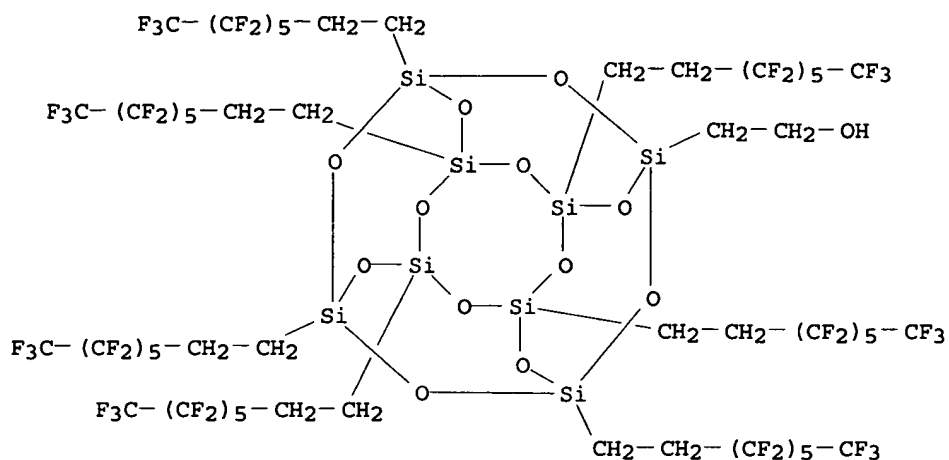
RN 757199-42-1 HCAPLUS

CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanepropanol, 3,5,7,9,11,13,15-heptakis(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, acetate (9CI) (CA INDEX NAME)

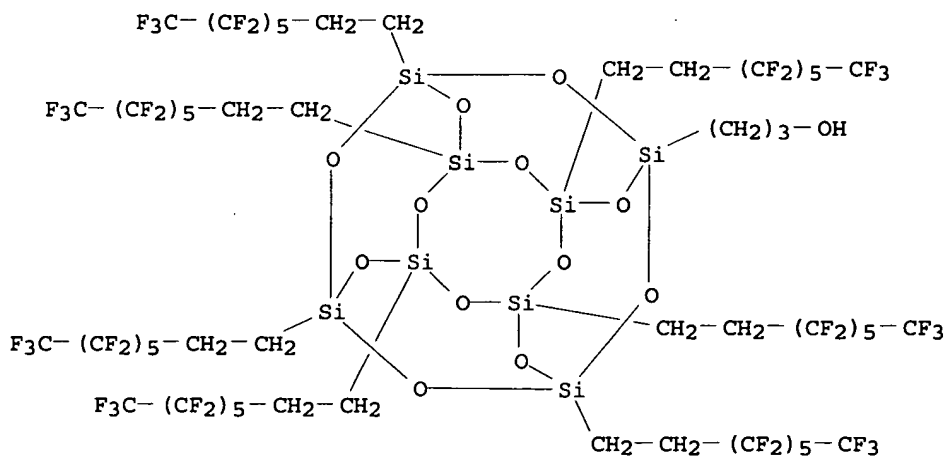


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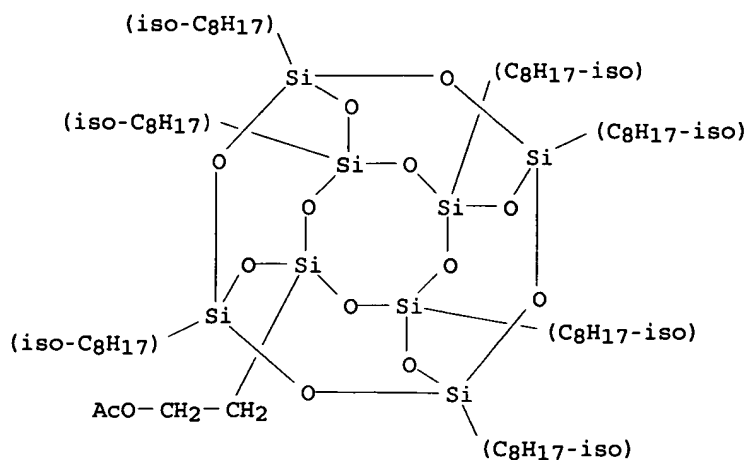
CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxaneethanol, 3,5,7,9,11,13,15-heptakis(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)- (9CI) (CA INDEX NAME)



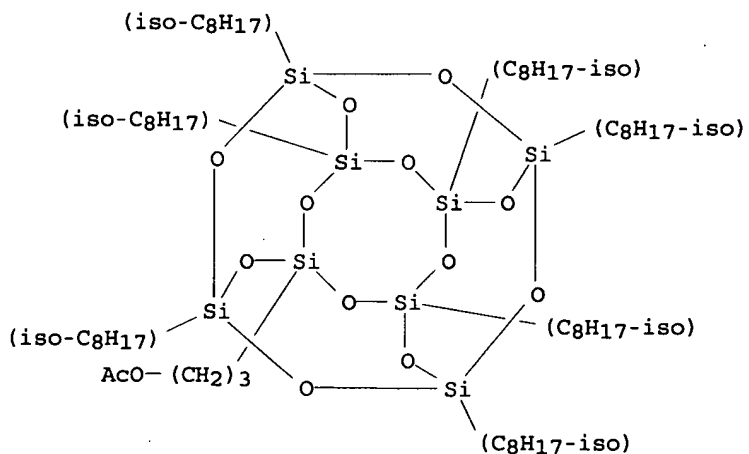
RN 757199-46-5 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanepropanol,
 3,5,7,9,11,13,15-heptakis(3,3,4,4,5,5,6,6,7,7,8,8,8-
 tridecafluorooctyl)- (9CI) (CA INDEX NAME)



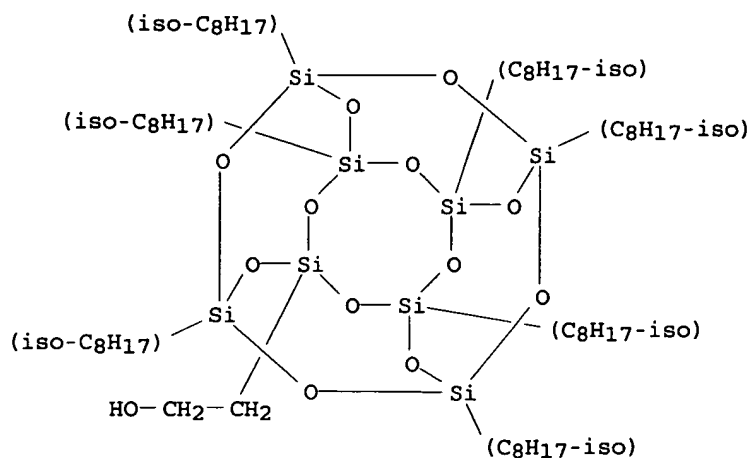
RN 757212-06-9 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxaneethanol,
 3,5,7,9,11,13,15-heptaisooctyl-, acetate (9CI) (CA INDEX NAME)



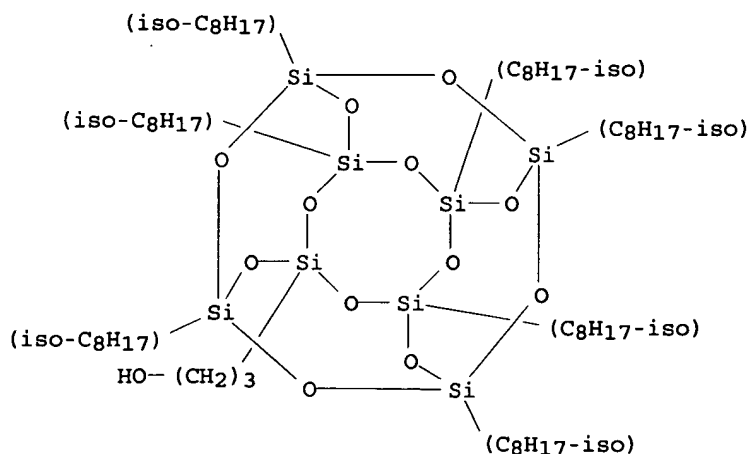
RN 757212-07-0 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanepropanol,
 3,5,7,9,11,13,15-heptaisooctyl-, acetate (9CI) (CA INDEX NAME)



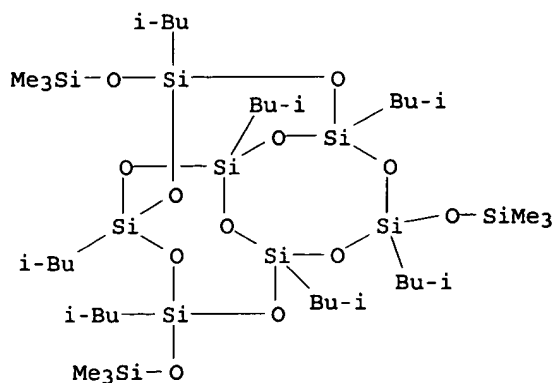
RN 757212-08-1 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxaneethanol,
 3,5,7,9,11,13,15-heptaisooctyl- (9CI) (CA INDEX NAME)



RN 757212-09-2 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanepropanol,
 3,5,7,9,11,13,15-heptaisooctyl- (9CI) (CA INDEX NAME)

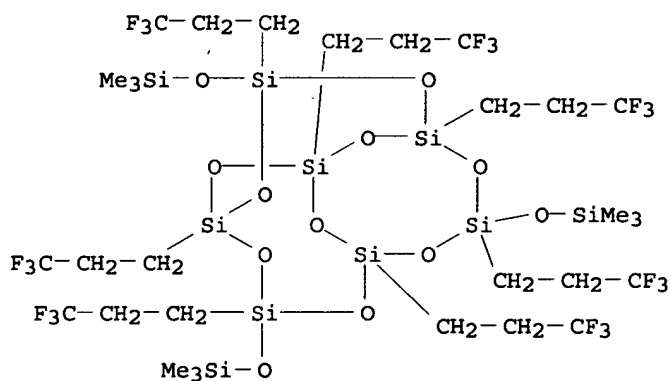


IT 444315-24-6P 656800-10-1P 656800-16-7P
 660392-77-8P
 RL: IMF (Industrial manufacture); MSC (Miscellaneous); PREP
 (Preparation)
 (model compd.; prepn. of silicone compds. having polymn.
 initiator capability to addnl. polymerizable monomers)
 RN 444315-24-6 HCAPLUS
 CN Tricyclo[7.3.3.15,11]heptasiloxane, 1,3,5,7,9,11,14-heptakis(2-
 methylpropyl)-3,7,14-tris[(trimethylsilyl)oxy]- (9CI) (CA INDEX
 NAME)



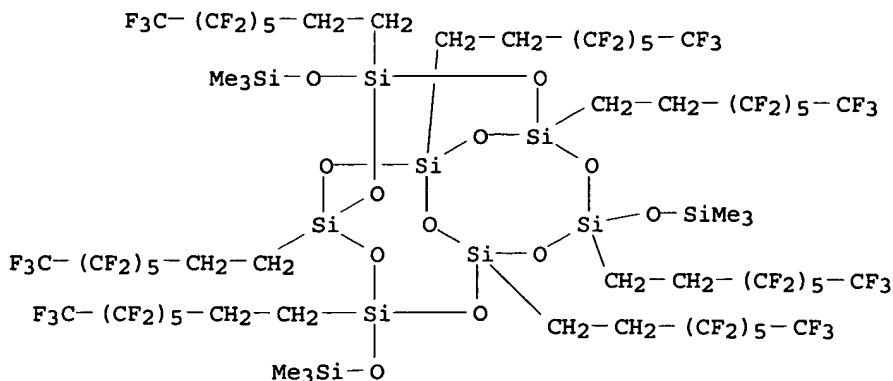
RN 656800-10-1 HCAPLUS

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RN 656800-16-7 HCAPLUS

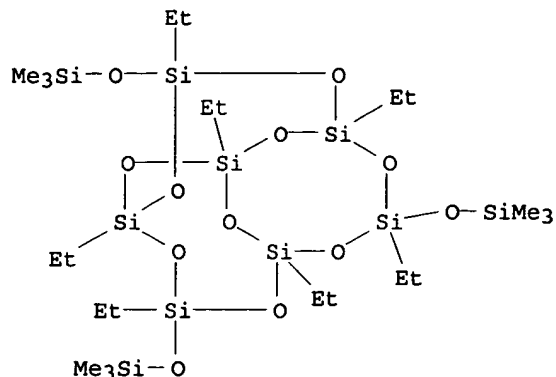
CN Tricyclo[7.3.3.15,11]heptasiloxane, 1,3,5,7,9,11,14-heptakis(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-3,7,14-tris[(trimethylsilyl)oxy]- (9CI) (CA INDEX NAME)



RN 660392-77-8 HCAPLUS

CN Tricyclo[7.3.3.15,11]heptasiloxane, 1,3,5,7,9,11,14-heptaethyl-

3,7,14-tris[(trimethylsilyl)oxy]- (9CI) (CA INDEX NAME)



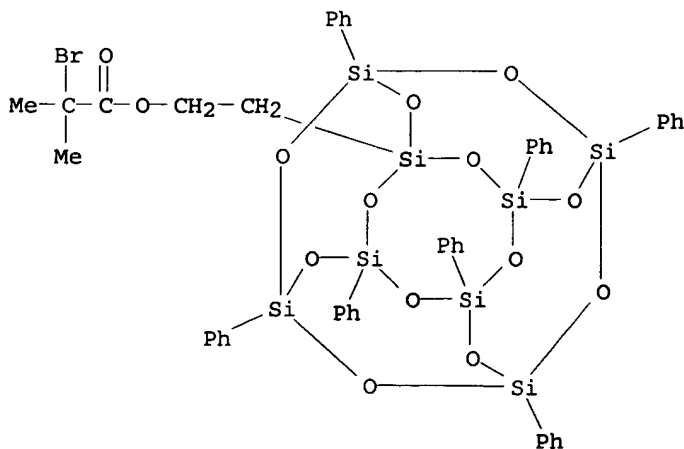
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 757199-54-5P 757199-56-7P 757199-58-9P
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 757199-66-9P 757199-68-1P 757199-70-5P
 757199-72-7P 757199-74-9P 757212-10-5P
 757212-11-6P

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)

(prepn. of silicone compds. having polymn. initiator
 capability to addnl. polymerizable monomers)

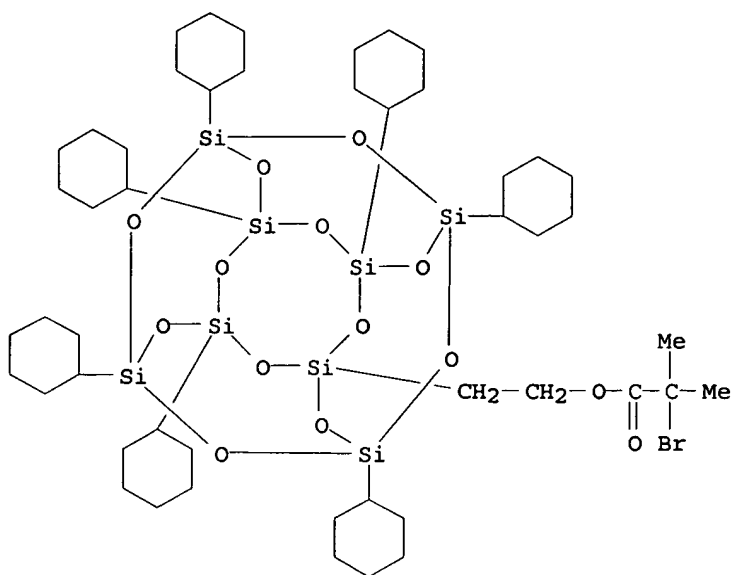
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CN Propanoic acid, 2-bromo-2-methyl-, 2-(3,5,7,9,11,13,15-
 heptaphenylpentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl)ethyl
 ester (9CI) (CA INDEX NAME)

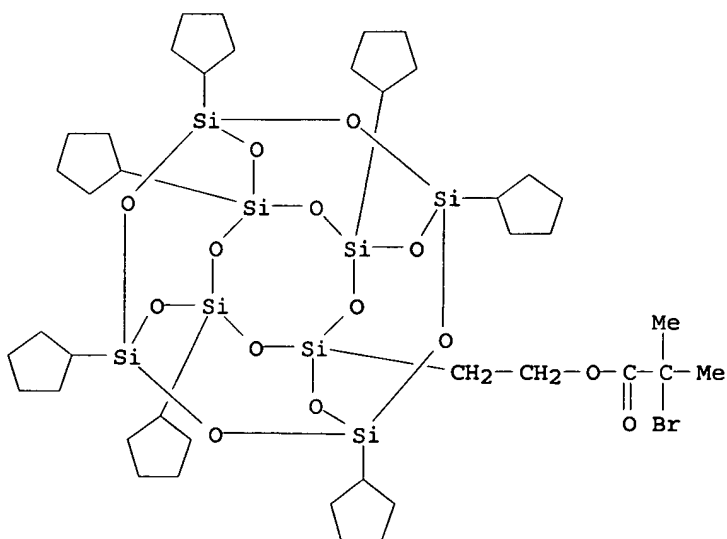


RN 757199-50-1 HCAPLUS

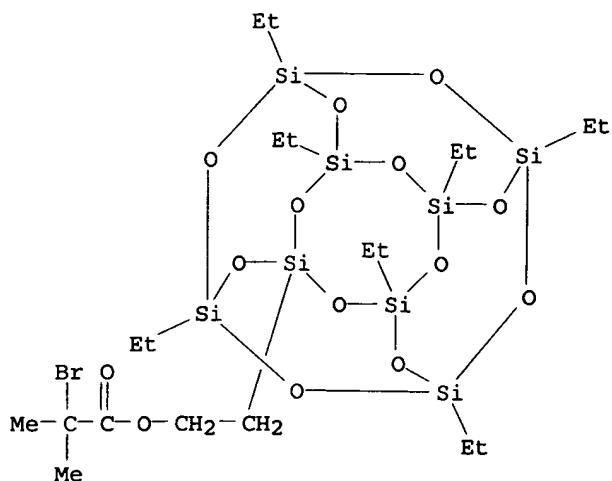
CN Propanoic acid, 2-bromo-2-methyl-, 2-(3,5,7,9,11,13,15-
 heptacyclohexylpentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl)ethyl
 ester (9CI) (CA INDEX NAME)



RN 757199-52-3 HCAPLUS
 CN Propanoic acid, 2-bromo-2-methyl-, 2-(3,5,7,9,11,13,15-heptacyclopentylpentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl)ethyl ester (9CI) (CA INDEX NAME)

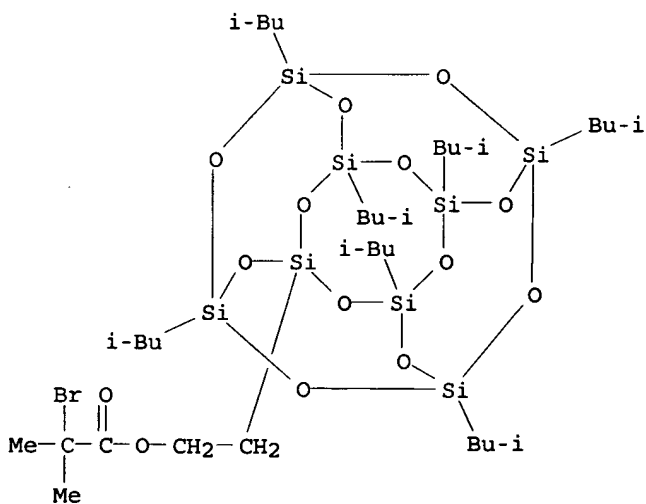


RN 757199-54-5 HCAPLUS
 CN Propanoic acid, 2-bromo-2-methyl-, 2-(3,5,7,9,11,13,15-heptaethylpentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl)ethyl ester (9CI) (CA INDEX NAME)



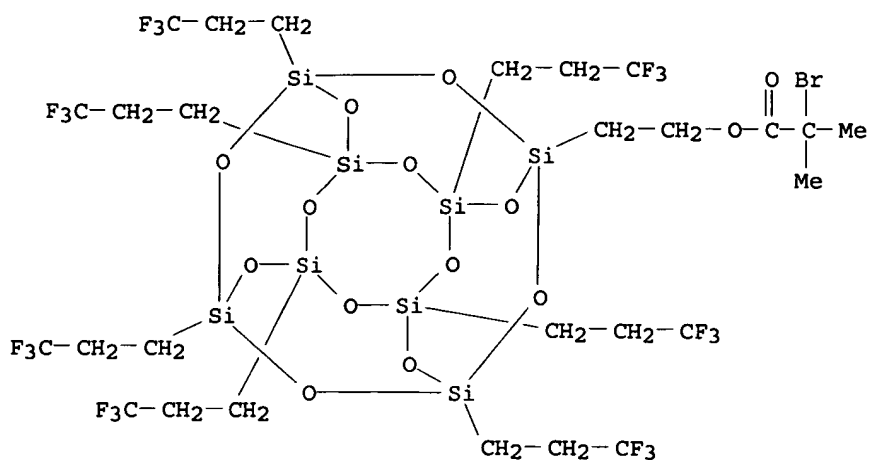
RN 757199-56-7 HCAPLUS

CN Propanoic acid, 2-bromo-2-methyl-, 2-[3,5,7,9,11,13,15-heptakis(2-methylpropyl)pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl]ethyl ester (9CI) (CA INDEX NAME)



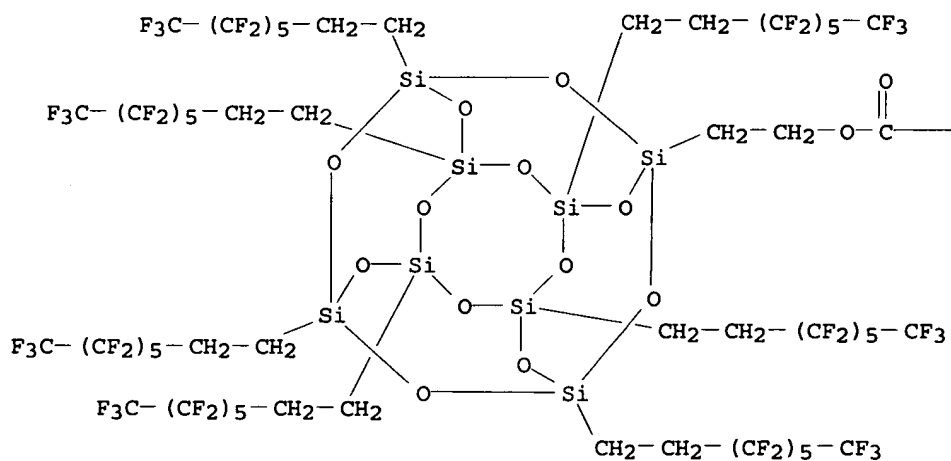
RN 757199-58-9 HCAPLUS

CN Propanoic acid, 2-bromo-2-methyl-, 2-[3,5,7,9,11,13,15-heptakis(3,3,3-trifluoropropyl)pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl]ethyl ester (9CI) (CA INDEX NAME)

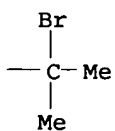


RN 757199-60-3 HCAPLUS
 CN Propanoic acid, 2-bromo-2-methyl-, 2-[3,5,7,9,11,13,15-heptakis(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl]ethyl ester (9CI) (CA INDEX NAME)

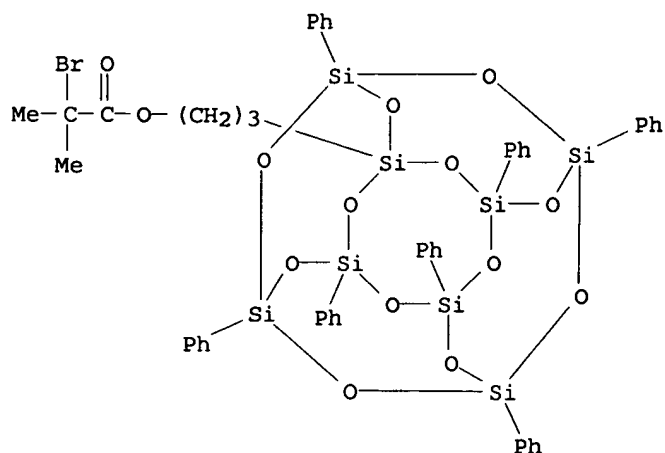
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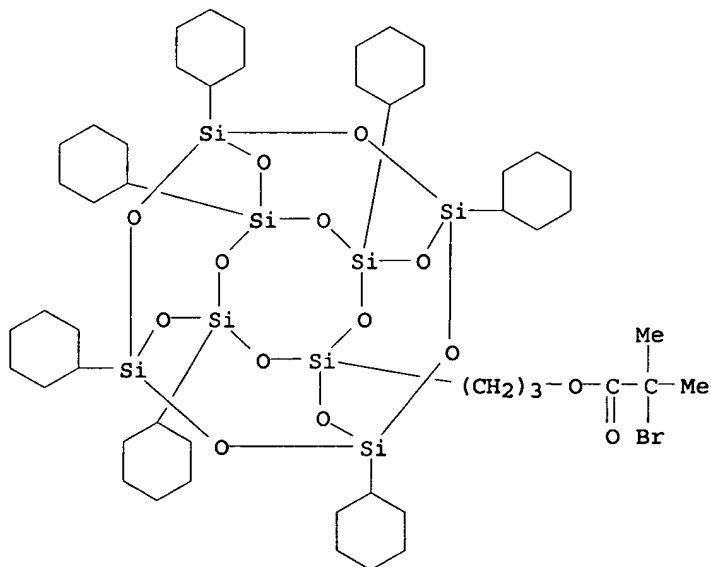


RN 757199-62-5 HCAPLUS
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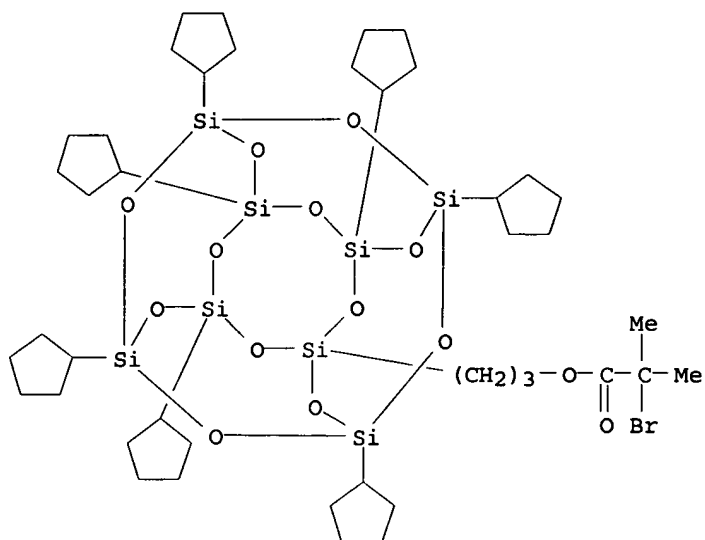
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 CN Propanoic acid, 2-bromo-2-methyl-, 3-(3,5,7,9,11,13,15-heptacyclohexylpentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl)propyl ester (9CI) (CA INDEX NAME)

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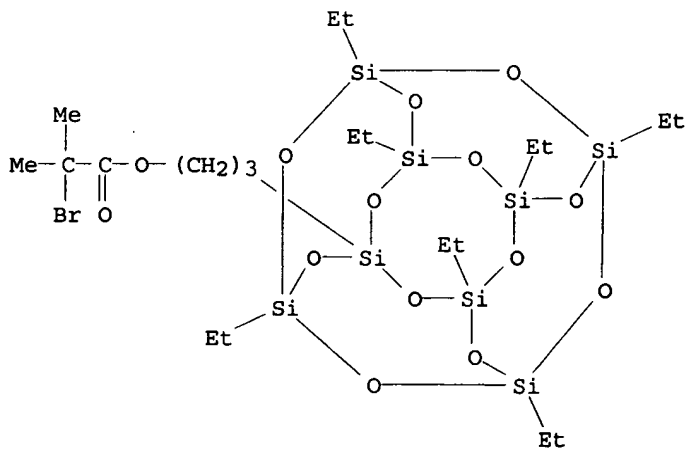


PAGE 2-A

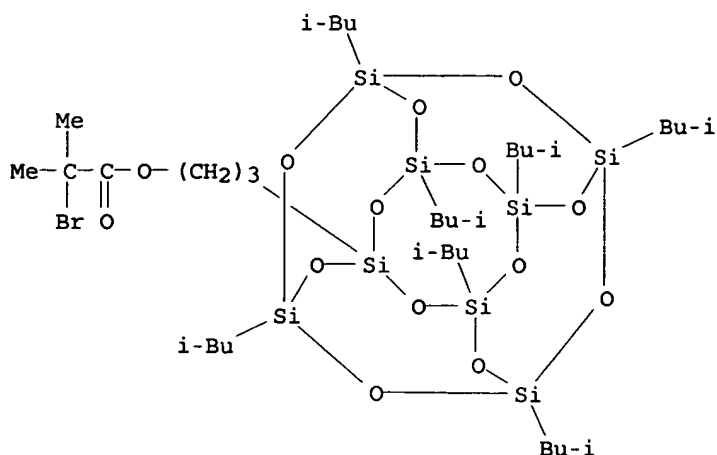
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 CN Propanoic acid, 2-bromo-2-methyl-, 3-(3,5,7,9,11,13,15-heptacyclopentylpentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl)propyl ester (9CI) (CA INDEX NAME)



RN 757199-68-1 HCAPLUS
 CN Propanoic acid, 2-bromo-2-methyl-, 3-(3,5,7,9,11,13,15-heptaethylpentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl)propyl ester (9CI) (CA INDEX NAME)

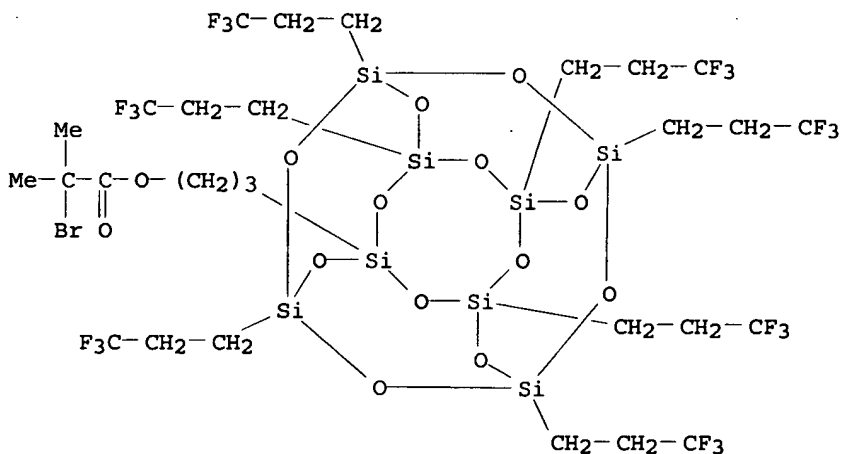


RN 757199-70-5 HCAPLUS
 CN Propanoic acid, 2-bromo-2-methyl-, 3-[3,5,7,9,11,13,15-heptakis(2-methylpropyl)pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl]propyl ester (9CI) (CA INDEX NAME)



RN 757199-72-7 HCAPLUS

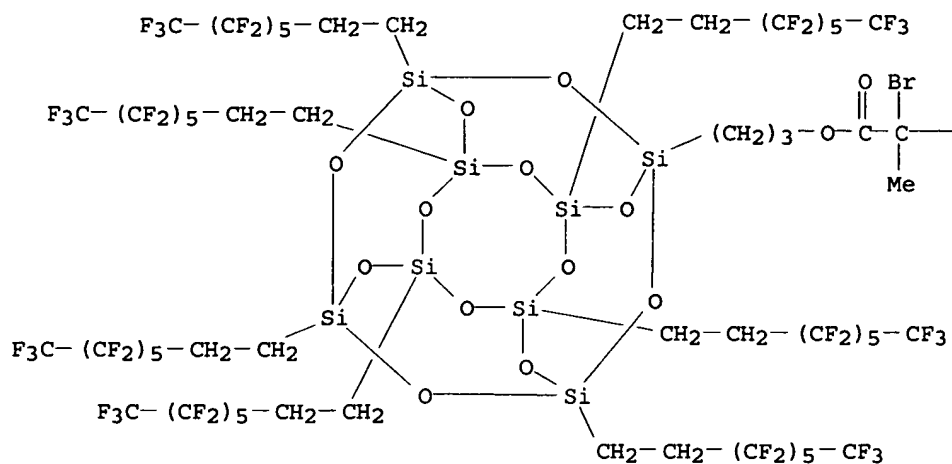
CN Propanoic acid, 2-bromo-2-methyl-, 3-[3,5,7,9,11,13,15-heptakis(3,3,3-trifluoropropyl)pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl]propyl ester (9CI) (CA INDEX NAME)



RN 757199-74-9 HCAPLUS

CN Propanoic acid, 2-bromo-2-methyl-, 3-[3,5,7,9,11,13,15-heptakis(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl]propyl ester (9CI) (CA INDEX NAME)

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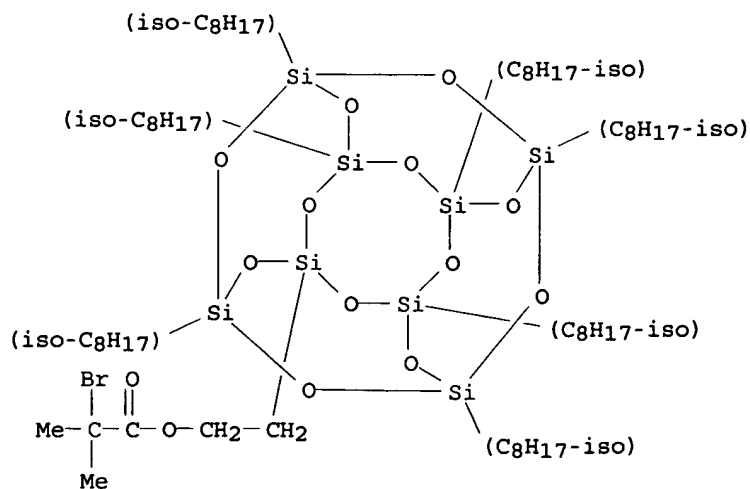


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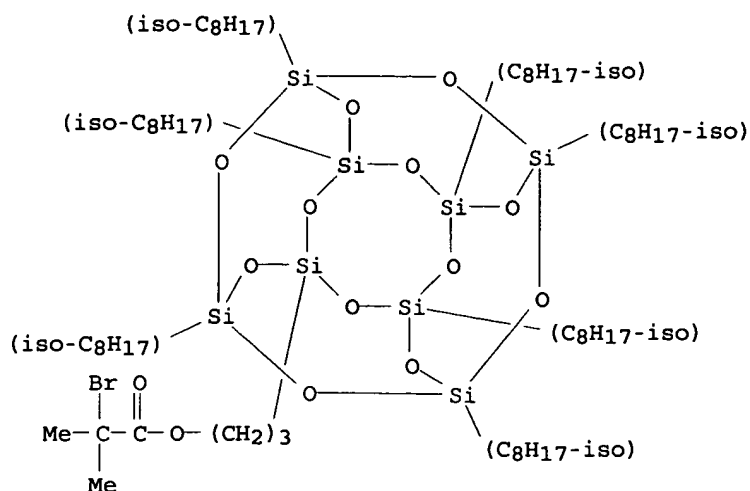
RN 757212-10-5 HCAPLUS

CN Propanoic acid, 2-bromo-2-methyl-, 2-(heptaisooctylpentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl)ethyl ester (9CI) (CA INDEX NAME)



RN 757212-11-6 HCAPLUS

CN Propanoic acid, 2-bromo-2-methyl-, 3-(heptaisooctylpentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl)propyl ester (9CI) (CA INDEX NAME)



- IC ICM C07F007-21
ICS C08F004-603; C08F012-06; C08F020-00; C08G077-442
- CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 78
- IT 135225-24-0, Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol, 1,3,5,7,9,11,14-heptacyclopentyl-, stereoisomer
RL: RCT (Reactant); RACT (Reactant or reagent)
(TriSilanolCyclopentyl-POSS; prepn. of silicone compds. having polymn. **initiator** capability to addnl. polymerizable monomers)
- IT 326621-07-2, Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol, 1,3,5,7,9,11,14-heptaethyl-
RL: RCT (Reactant); RACT (Reactant or reagent)
(TriSilanolEthyl-POSS; prepn. of silicone compds. having polymn. **initiator** capability to addnl. polymerizable monomers)
- IT 255062-79-4, Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol, 1,3,5,7,9,11,14-heptakis(2-methylpropyl)-, stereoisomer
RL: RCT (Reactant); RACT (Reactant or reagent)
(TriSilanolIsobutyl-POSS; prepn. of silicone compds. having polymn. **initiator** capability to addnl. polymerizable monomers)
- IT 444619-08-3, Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol, 1,3,5,7,9,11,14-heptaisooctyl-
RL: RCT (Reactant); RACT (Reactant or reagent)
(TriSilanolIsooctyl-POSS; prepn. of silicone compds. having polymn. **initiator** capability to addnl. polymerizable monomers)
- IT 444315-26-8, Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol, 1,3,5,7,9,11,14-heptaphenyl-
RL: RCT (Reactant); RACT (Reactant or reagent)
(TriSilanolPhenyl-POSS; prepn. of silicone compds. having polymn. **initiator** capability to addnl. polymerizable monomers)
- IT 4115-83-7, TrisilanolCyclohexyl-POSS
RL: RCT (Reactant); RACT (Reactant or reagent)
(TrisilanolCyclohexyl-POSS; prepn. of silicone compds. having polymn. **initiator** capability to addnl. polymerizable monomers)
- IT 244096-50-2P 352538-66-0P 465499-97-2P
476635-00-4P 656800-09-8P 656800-11-2P
656800-14-5P 656800-15-6P 656800-17-8P
660392-75-6P 660392-76-7P 660426-07-3P
681235-70-1P 757198-90-6P 757198-92-8P

757198-94-0P 757198-96-2P 757198-98-4P
 757199-00-1P 757199-03-4P 757199-05-6P
 757199-07-8P 757199-09-0P 757199-11-4P
 757199-13-6P 757199-15-8P 757199-17-0P
 757199-19-2P 757199-22-7P 757199-24-9P
 757199-26-1P 757199-28-3P 757199-31-8P
 757199-34-1P 757199-40-9P 757199-42-1P
 757199-44-3P 757199-46-5P 757212-06-9P
 757212-07-0P 757212-08-1P 757212-09-2P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of silicone compds. having polymn.
 initiator capability to addnl. polymerizable monomers)

IT 118868-51-2P 444315-24-6P 476634-98-7P
 656800-10-1P 656800-16-7P 660392-77-8P
 660426-08-4P

RL: IMF (Industrial manufacture); MSC (Miscellaneous); PREP
 (Preparation)

(model compd.; prepn. of silicone compds. having polymn.
 initiator capability to addnl. polymerizable monomers)

IT 757199-48-7P 757199-50-1P 757199-52-3P
 757199-54-5P 757199-56-7P 757199-58-9P
 757199-60-3P 757199-62-5P 757199-64-7P
 757199-66-9P 757199-68-1P 757199-70-5P
 757199-72-7P 757199-74-9P 757212-10-5P
 757212-11-6P

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)

(prepn. of silicone compds. having polymn. initiator
 capability to addnl. polymerizable monomers)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN
 THE RE FORMAT

L27 ANSWER 9 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:717813 HCAPLUS

DOCUMENT NUMBER: 141:227051

TITLE: Actinic energy ray-curable ink-jet
 inks and their use in printed
 matter

INVENTOR(S): Sasa, Nobumasa

PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004244448	A2	20040902	JP 2003-33033	20030212
				<--
PRIORITY APPLN. INFO.:			JP 2003-33033	20030212
				<--

AB The inks with good photopolymn. in wet state, curability, stability, delivery in nozzles, adhesion, resistance to solvents and water, etc., contain compds. having ≥ 2 oxetane rings, and the oxetane compds. satisfy soly. parameter (sp value) of ≥ 1 substituent of the oxetane rings excluding the linking group for the oxetane rings 7-11. Thus, an ink contg. Cu phthalocyanine

pigment, di[3-phenoxyethyl(3-oxetanyl)]methyl ether (sp value 10.50), Celloxide 2021P (oxirane compd.), DVE 3 (vinyl ether compd.), a pigment dispersant, and an initiator was jet-printed on poly(ethylene terephthalate) and UV-cured to give printed matter showing high scratch resistance.

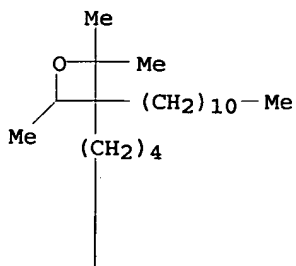
IT 748185-73-1P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(actinic energy ray-curable ink-jet inks
contg. oxetanes and their use in printed matter)

RN 748185-73-1 HCAPLUS

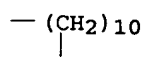
CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxane, octakis[4-(2,2,4-trimethyl-3-undecyl-3-oxetanyl)butyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

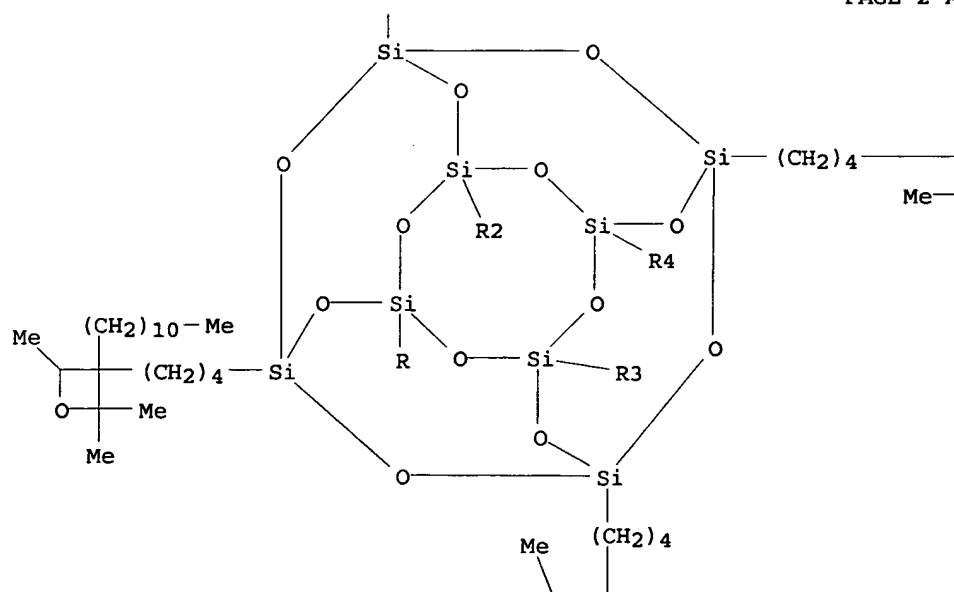


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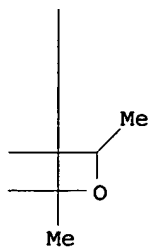
PAGE 1-B



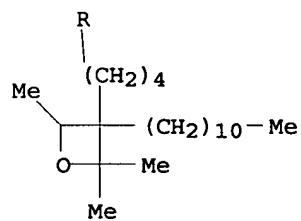
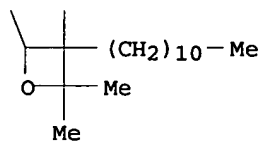
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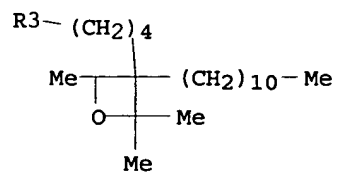
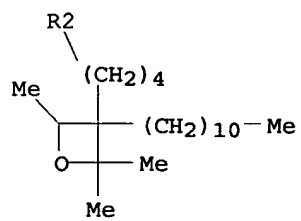
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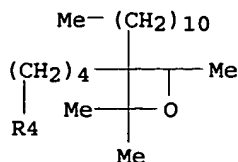
PAGE 3-A



PAGE 4-A



PAGE 5-A



- IC ICM C09D011-00
ICS B41J002-01; B41M005-00
- CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 74
- ST oxetane actinic ray curable jet **printing ink**; UV curable diphenoxymethyloxetanylmethyl ether **ink jet printing**; oxirane vinyl ether oxetane UV curable **ink**
- IT **Inks**
(jet-**printing**; actinic energy ray-curable **ink** -jet **inks** contg. oxetanes and their use in **printed matter**)
- IT **Inks**
(**printing**, photocurable; actinic energy ray-curable **ink-jet inks** contg. oxetanes and their use in **printed matter**)
- IT 18393-55-0D, salts
RL: CAT (Catalyst use); USES (Uses)
(actinic energy ray-curable **ink-jet inks** contg. oxetanes and their use in **printed matter**)
- IT 748185-67-3P 748185-68-4P 748185-69-5P 748185-70-8P
748185-71-9P 748185-72-0P **748185-73-1P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(actinic energy ray-curable **ink-jet inks** contg. oxetanes and their use in **printed matter**)
- IT 205944-57-6, Adeka Optomer SP 152
RL: CAT (Catalyst use); USES (Uses)
(**initiator, ink** contg.; actinic energy ray-curable **ink-jet inks** contg. oxetanes and their use in **printed matter**)
- IT 765-12-8, DVE 3 25085-98-7, Celloxide 2021P
RL: TEM (Technical or engineered material use); USES (Uses)
(**ink** contg.; actinic energy ray-curable **ink** -jet **inks** contg. oxetanes and their use in **printed matter**)
- IT 92-88-6, 4,4'-Biphenol 64049-35-0 748185-74-2 748185-75-3
748185-76-4 748185-77-5 748185-78-6 748185-79-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxetanes from; actinic energy ray-curable **ink-jet inks** contg. oxetanes and their use in **printed matter**)
- IT 375798-26-8, Solsperser 32000
RL: TEM (Technical or engineered material use); USES (Uses)
(pigment dispersant, **ink** contg.; actinic energy ray-curable **ink-jet inks** contg. oxetanes and their use in **printed matter**)
- IT 147-14-8, Copper phthalocyanine
RL: TEM (Technical or engineered material use); USES (Uses)
(pigment, **ink** contg.; actinic energy ray-curable **ink-jet inks** contg. oxetanes and their use in **printed matter**)

L27 ANSWER 10 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:701381 HCAPLUS
DOCUMENT NUMBER: 141:208733

TITLE: Radiation curable ink compositions suitable for ink-jet printing
 INVENTOR(S): Vanmaele, Luc; Loccufier, Johan; Claes, Roland
 PATENT ASSIGNEE(S): Belg.
 SOURCE: U.S. Pat. Appl. Publ., 21 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004163570	A1	20040826	US 2004-774980	20040209
EP 1452569	A1	20040901	EP 2004-100444	20040206
JP 2004339480	A2	20041202	JP 2004-49848	20040225
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRIORITY APPLN. INFO.: EP 2003-100462 A 20030226				
US 2003-455606P P 20030317				

OTHER SOURCE(S): MARPAT 141:208733
 AB A radiation curable ink compn. comprises at least one initiator and at least one polyhedral oligomeric silsesquioxane (POSS) represented by $[R(SiO_{1.5})]_n$ wherein $n = 4, 6, 8, 10, 12, 14$, or 16 and larger and each R is independently hydrogen, an inorg. group, an alkyl group, an alkylene group, an aryl group, an arylene group, or non-heterocyclic group-contg. organo-functional derivs. of alkyl, alkylene, aryl or arylene groups. A process for obtaining a colorless, monochrome or multicolor ink jet image comprises jetting one or more streams of ink droplets having the above-mentioned compn. onto an ink-jet ink receiver material, and subjecting the obtained image to radiation curing.
 IC ICM C09D011-00
 INCL 106031130
 CC 42-12 (Coatings, Inks, and Related Products)

L27 ANSWER 11 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:512370 HCAPLUS
 DOCUMENT NUMBER: 141:55455
 TITLE: Multilayer polymer article, its manufacture, and its use in vehicle window
 INVENTOR(S): Kin, Shinichiro; Imanaka, Yoshihiko
 PATENT ASSIGNEE(S): Teijin Chemicals Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 51 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

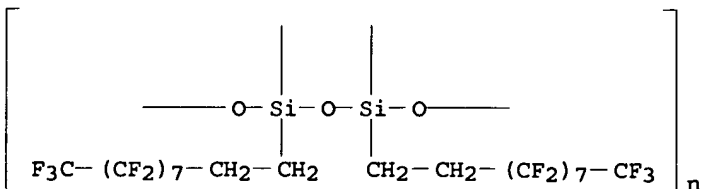
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004175094	A2	20040624	JP 2003-58271	20030305
<--				
PRIORITY APPLN. INFO.:			JP 2002-289604	A
<--				
				20021002

AB The article with improved surface hardness and resistance to wear, weather, and water has a polymer substrate, a 3-70 μm -thick actinic ray-cured layer satisfying hardness in nanoindentation measurement under max. load 1 mN 0.2-0.8 GPa and (Young's modulus) + (hardness) 1-6 (GPa)2, and a 3.5-12 μm -thick SiO₂ vacuum vapor deposition layer in this order, wherein (1) the SiO₂ layer has Young's modulus in nanoindentation measurement under max. load 1 mN 45-125 GPa or (2) the article has O permeability 0-0.5 cc/m²/day. The article is manufd. by forming the SiO₂ layer so that a vertical line to any one point on the substrate deposition area and a line between the point and a vapor deposition source form angle <30°. The window contains the article with thickness 1-25 mm. Thus, Panlite PC 1111 (bisphenol A-diphenyl carbonate copolymer plate) was coated with a mixt. contg. Light-Acrylate DCP-A (dicyclopentanyl diacrylate), Light-Acrylate DPE-6E (dipentaerythritol hexaacrylate), Tinuvin 1577FF (UV absorber), a polymn. initiator, SH 28PA (polyether-modified di-Me polysiloxane), and a solvent, dried, and UV-irradiated to give a cured layer. Then, SiO 07GB (SiO₂) was vapor-deposited on the cured layer to give a test plate showing pencil hardness 2H, water contact angle <15°, and high boiling water resistance.

IT 161045-59-6P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (water-repellent layer on SiO₂ layer; multilayer polymer article having actinic ray-cured layer and vapor-deposited SiO₂ layer for vehicle window)

RN 161045-59-6 HCAPLUS

CN Poly[[1,3-bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-1,3:1,3-disiloxanediyldiene]-1,3-bis(oxy)] (9CI) (CA INDEX NAME)



IC ICM B32B009-00

CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 42, 75

IT 159412-13-2P, KBM 7803 homopolymer 161045-59-6P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (water-repellent layer on SiO₂ layer; multilayer polymer article having actinic ray-cured layer and vapor-deposited SiO₂ layer for vehicle window)

L27 ANSWER 12 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:492331 HCAPLUS

DOCUMENT NUMBER: 141:73049

TITLE: Silicone compositions curable by cationic photochemistry contg. colloidal silica for soilproof antifogging hard coatings

INVENTOR(S): Deruelle, Martial; Frances, Jean Marc; Feder, Michel

PATENT ASSIGNEE(S): Rhodia Chimie, Fr.

SOURCE: Fr. Demande, 26 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2848563	A1	20040618	FR 2002-15946	20021216
WO 2004063300	A1	20040729	WO 2003-FR3614	20031208
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003296771	A1	20040810	AU 2003-296771	20031208
EP 1572819	A1	20050914	EP 2003-815084	20031208
CN 1735667	A	20060215	CN 2003-80108299	20031208
JP 2006511673	T2	20060406	JP 2004-566097	20031208
US 2006040113	A1	20060223	US 2005-153622	20050616
PRIORITY APPLN. INFO.:				20021216

WO 2003-FR3614

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200312
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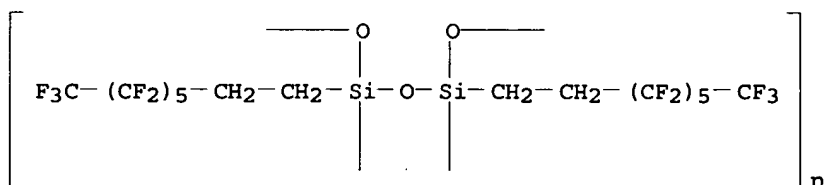
OTHER SOURCE(S): MARPAT 141:73049

AB Polysiloxanes having epoxy, alkenyl, oxetane, dioxolane, or carbonate groups are useful for manuf. of photocurable hard coatings contg. colloidal silica and cationic initiators. To improved the antifogging properties of these coatings other polysiloxanes having oxyalkylene groups are added, and to improve the soilproofing of these coatings other polysiloxanes having fluorohydrocarbon groups and(or) polymerizable perfluoropolyoxyalkylenes are added. A typical abrasion-resistant coating compn. contained 10 g resin contg. 90% diepoxide I and 5% 4-[2-(hydroxydimethylsilyl)ethyl]cyclohexane 1,2-epoxide, 1.25 g 20% soln. of 4-tolyl-4-isopropylphenyliodonium tetrakis(pentafluorophenyl)borate in iso-PROH, 40 g colloidal silica (30% iso-PROH soln.).

IT 161565-76-0, 2-(Perfluorohexyl)ethyltrimethoxysilane homopolymer, sru
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (silicone compns. curable by cationic photochem. contg. colloidal silica for soilproof and antifogging hard coatings)

RN 161565-76-0 HCAPLUS

CN Poly[[1,3-bis(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-1,3:1,3-disiloxanediylidene]-1,3-bis(oxy)] (9CI) (CA INDEX NAME)



IC ICM C08K003-36
 ICS C08L083-06; C09D183-06; C09D005-16; C09K003-18; C08J003-24;
 C08J007-04

CC 42-10 (Coatings, Inks, and Related Products)

IT 178233-72-2

RL: CAT (Catalyst use); USES (Uses)
 (photochem. initiator; silicone compns. curable by cationic photochem. contg. colloidal silica for soilproof and antifogging hard coatings)

IT 161565-76-0, 2-(Perfluorohexyl)ethyltrimethoxysilane homopolymer, sru
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (silicone compns. curable by cationic photochem. contg. colloidal silica for soilproof and antifogging hard coatings)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 13 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:411604 HCAPLUS

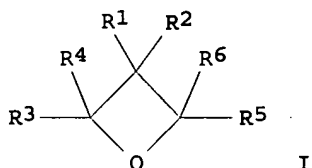
DOCUMENT NUMBER: 140:408371

TITLE: Oxetanes, their radiation-curable compositions and anticlogging jet-printing ink compositions with good storage stability, and ink jet printing process

INVENTOR(S): Nishizeki, Masato; Sasa, Nobumasa

PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 52 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004143135	A2	20040520	JP 2003-103904	20030408
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PRIORITY APPLN. INFO.:			JP 2002-252359	A 20020830
			<--	
OTHER SOURCE(S):			MARPAT 140:408371	
GI				



AB The oxetanes are I (R1-R6 = H, substituent; R3 ≠ R4 ≠ H, R5 ≠ R6 ≠ H). Thus, an **ink** compn. contg. (4-MeC6H4)3S+BF4- 5.0, Celloxide 3000 (alicyclic epoxy resin) 20.0, I (R1 = R2 = R5 = R6 = Me, R3 = R4 = Ph) 80.0, and Adeka Optomer SP 152 (**photoinitiator**) 10.0 parts showed viscosity increase <2 mPa-s after storage at 55° for 1 wk and good curability. Then, a image/**printed** on a polycarbonate substrate with the **ink** compn. showed good scratch resistance and adhesion to the substrate.

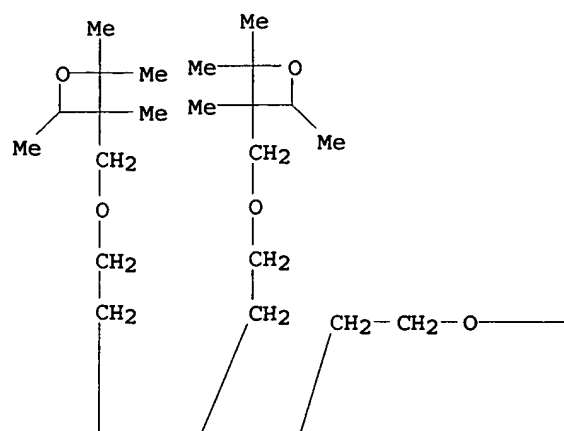
IT 685878-56-2P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (oxetanes for radiation-curable anticlogging **jet-printing ink** compns. with good storage stability)

RN 685878-56-2 HCAPLUS
 CN 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 7-oxabicyclo[4.1.0]hept-3-ylmethyl ester, polymer with 1-methyl-4-(2-methyloxiranyl)-7-oxabicyclo[4.1.0]heptane and octakis[2-[(2,2,3,4-tetramethyl-3-oxetanyl)methoxy]ethyl]pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxane (9CI) (CA INDEX NAME)

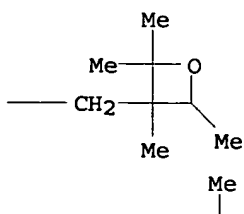
CM 1

CRN 685878-55-1
 CMF C80 H152 O28 Si8

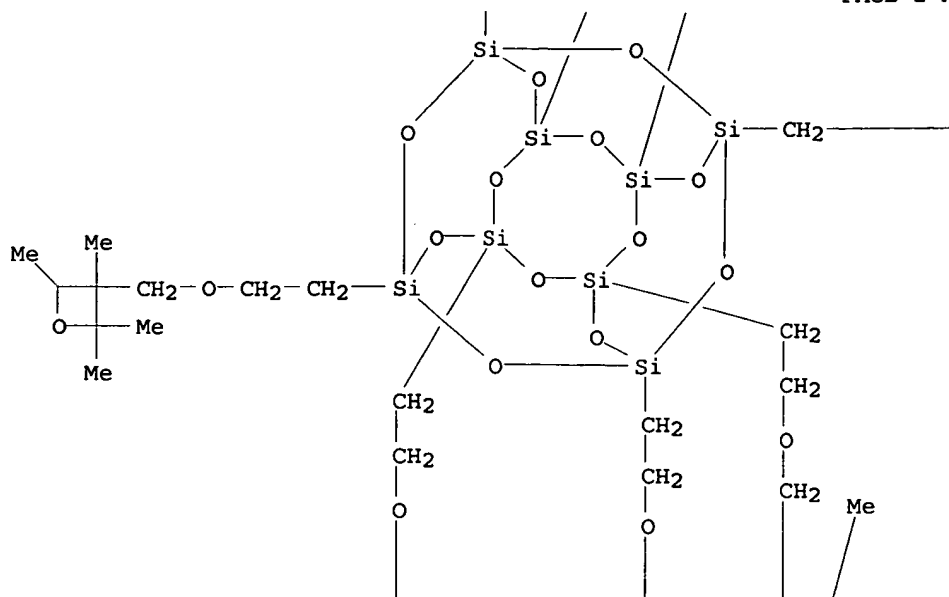
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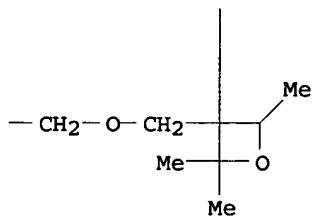
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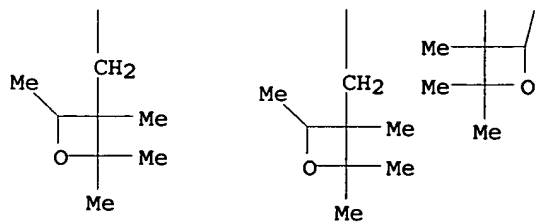
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PAGE 2-B

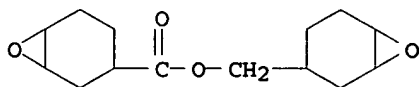


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CM 2

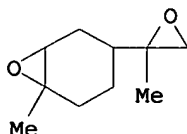
CRN 2386-87-0
CMF C14 H20 O4



CM 3

CRN 96-08-2

CMF C10 H16 O2



- IC ICM C07D305-06
ICS B41J002-01; C07D305-08; C07D305-14; C07F007-21; C09D011-00
- CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 27, 74
- ST oxetane radiation curable jet **printing ink**;
epoxy resin oxetane radiation curable **ink**;
methyldiphenyloxetane jet **printing ink** storage
stability; anticlogging jet **printing ink**
methyldiphenyloxetane
- IT Polyethers, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(epoxy, oxetane-contg.; oxetanes for radiation-curable
anticlogging jet-**printing ink** compns. with
good storage stability)
- IT Silsesquioxanes
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(epoxy-, oxetane-contg.; oxetanes for radiation-curable
anticlogging jet-**printing ink** compns. with
good storage stability)
- IT **Inks**
(jet-**printing**, anticlogging, storage-stable; oxetanes
for radiation-curable anticlogging jet-**printing**
ink compns. with good storage stability)
- IT Epoxy resins, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(oxetane-contg.; oxetanes for radiation-curable anticlogging jet-
printing ink compns. with good storage
stability)
- IT **Ink-jet printing**
(oxetanes for radiation-curable anticlogging jet-**printing**
ink compns. with good storage stability)
- IT Epoxy resins, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(polyether-, oxetane-contg.; oxetanes for radiation-curable
anticlogging jet-**printing ink** compns. with
good storage stability)
- IT **Inks**
(**printing**, radiation-curable; oxetanes for
radiation-curable anticlogging jet-**printing ink**
compns. with good storage stability)
- IT Epoxy resins, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(silsesquioxane-, oxetane-contg.; oxetanes for radiation-curable anticlogging jet-printing ink compns. with good storage stability)

IT 42245-06-7P 685878-36-8P 685878-40-4P 685878-45-9P
685878-50-6P 685878-61-9P 685878-67-5P 685878-73-3P
686341-10-6P 686341-11-7P 686341-12-8P 686341-13-9P
686341-15-1P 686341-16-2P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(oxetanes for radiation-curable anticlogging jet-printing ink compns. with good storage stability)

IT 685878-32-4P 685878-37-9P 685878-41-5P 685878-46-0P
685878-51-7P 685878-56-2P 685878-62-0P 685878-68-6P
685878-74-4P 685878-79-9P 685878-83-5P 685878-87-9P
685878-92-6P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(oxetanes for radiation-curable anticlogging jet-printing ink compns. with good storage stability)

IT 92-88-6, 4,4'-Biphenol 100-66-3, Anisole, reactions 119-61-9,
Benzophenone, reactions 563-79-1, 2,3-Dimethylbut-2-ene 622-87-7
766-51-8, 2-Chloroanisole 18908-66-2, 1-Bromo-2-ethylhexane
30274-05-6 61266-58-8 686341-06-0 686341-07-1 686341-08-2
686341-09-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(oxetanes for radiation-curable anticlogging jet-printing ink compns. with good storage stability)

L27 ANSWER 14 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:267342 HCAPLUS

DOCUMENT NUMBER: 140:287854

TITLE: Silicon compound useful as polymerization initiators

INVENTOR(S): Yamahiro, Mikio; Oikawa, Hisao; Yoshida, Kazuhiro; Ito, Kenya; Yamamoto, Yasuhiro; Tanaka, Masami; Ootake, Nobumasa; Watanabe, Kenichi; Ohno, Kohji; Tsujii, Yoshinobu; Fukuda, Takeshi

PATENT ASSIGNEE(S): Chisso Corporation, Japan

SOURCE: PCT Int. Appl., 220 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

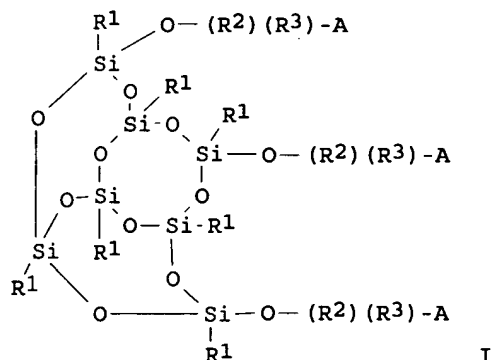
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004026883	A1	20040401	WO 2003-JP11856	20030917

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 OTHER SOURCE(S): MARPAT 140:287854
 GI



AB The present invention relates to a silsesquioxane deriv. I, wherein R1 = H, alkyl, aryl, or arylalkyl; R2, R3 = alkyl, Ph, or cyclohexyl; and A = groups having the ability to cause monomers to begin to polymerize. When the silsesquioxane deriv. is used to form a polymer, a new org./inorg. composite material is obtained. Thus, 211.5 g phenyltrichlorosilane was reacted, hydrosilylated, chloromethylphenylethylated, and reacted with N,N-diethyldithiocarbamic acid sodium salt trihydrate to give a dithiocarbamoyl group-contg. silsesquioxane, 0.17 g of which was used as a polymn. initiator for a photopolymn. of Me methacrylate, giving polymethyl methacrylate with no. av. mol. wt. 8500, wt. av. mol. wt. 12,000, glass transition temp. 94°, and thermal decompn. temp. 286°.

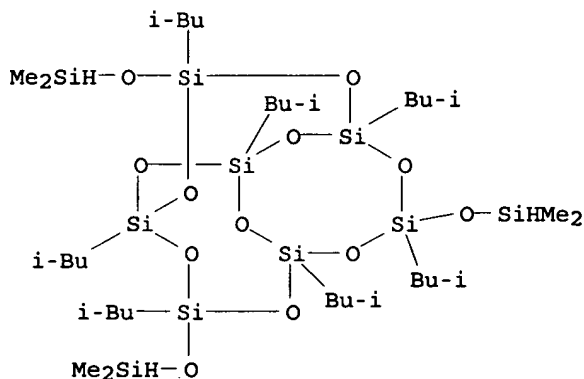
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 676229-42-8P 676229-43-9P 676229-44-0P
 676229-47-3P 676229-48-4P 676229-49-5P
 676229-50-8P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 (intermediate; prepn. of silicon compds. useful as polymn.
 initiators)

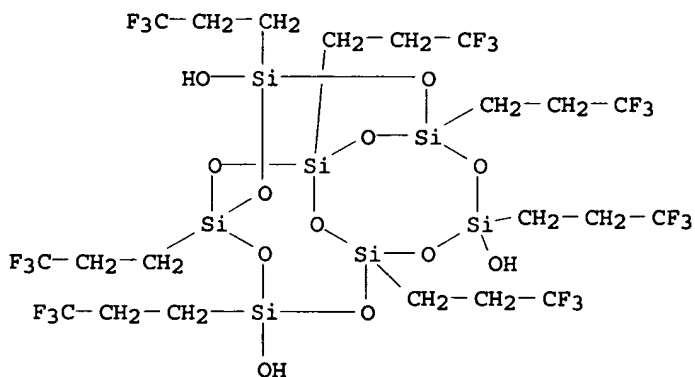
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CN Tricyclo[7.3.3.15,11]heptasiloxane, 3,7,14-tris[(dimethylsilyl)oxy]-
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RN 656800-11-2 HCAPLUS

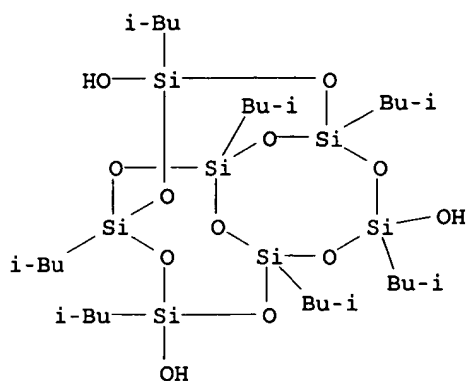
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 (9CI) (CA INDEX NAME)



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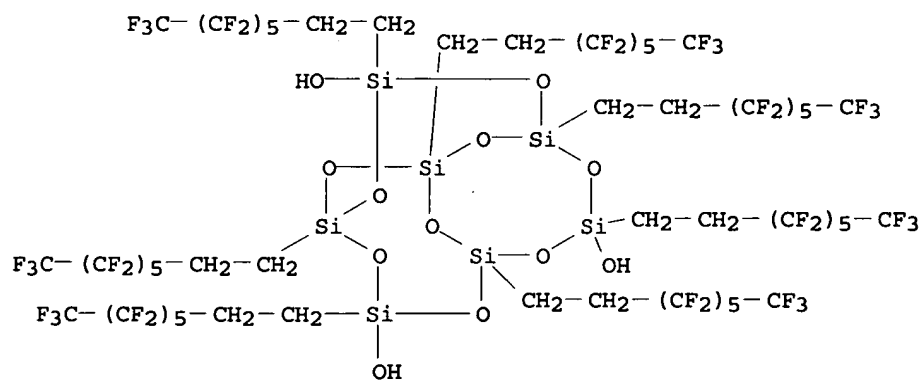
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 INDEX NAME)



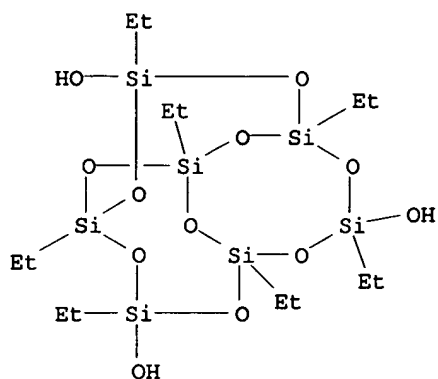
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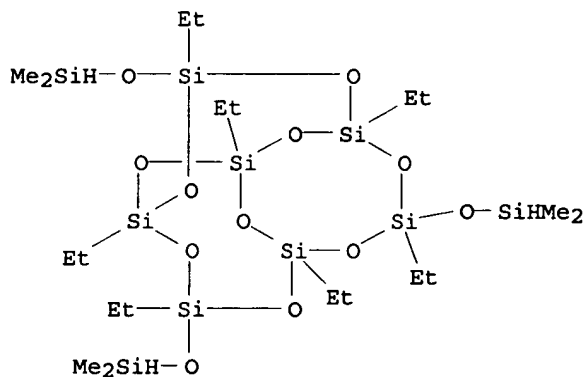
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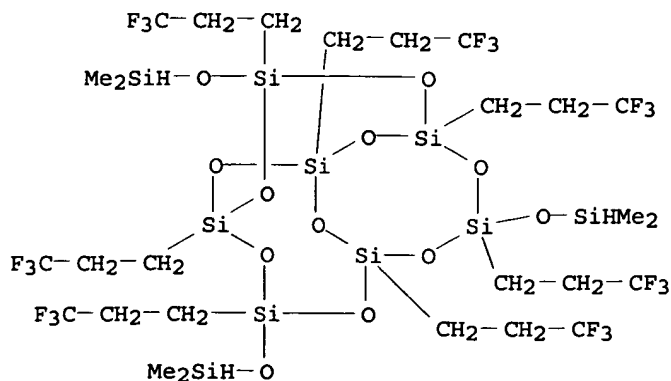
RN 676229-36-0 HCAPLUS

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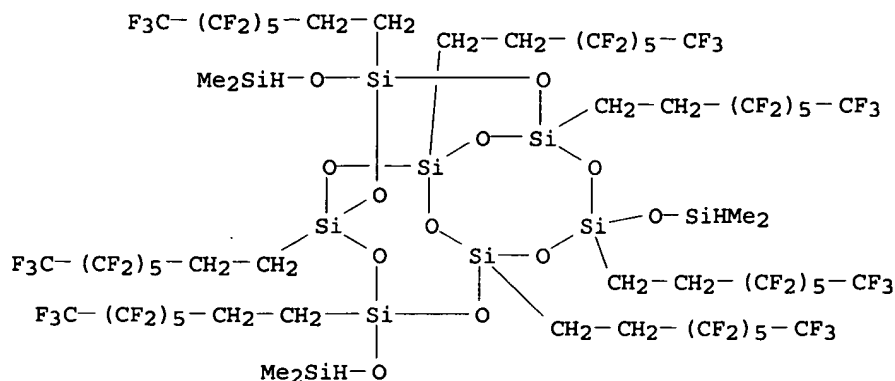


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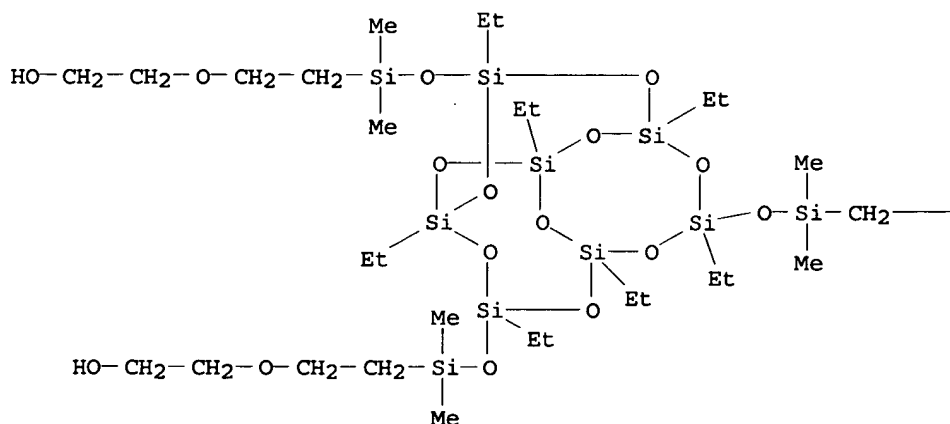


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 tridecafluorooctyl)- (9CI) (CA INDEX NAME)



RN 676229-41-7 HCAPLUS
 CN Ethanol, 2,2',2''-[(1,3,5,7,9,11,14-heptaethyltricyclo[7.3.3.15,11]h
 eptasiloxane-3,7,14-triyl)tris[oxy(dimethylsilylene)-2,1-
 ethanediyl]oxy]]tris- (9CI) (CA INDEX NAME)

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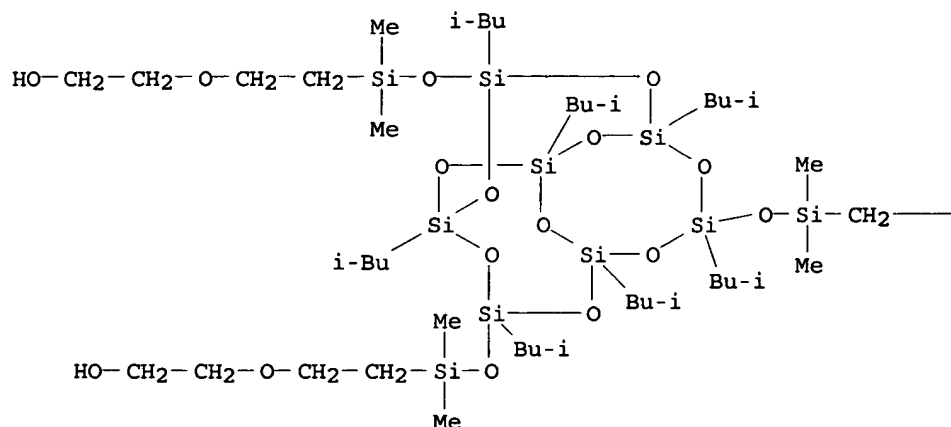
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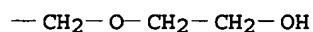
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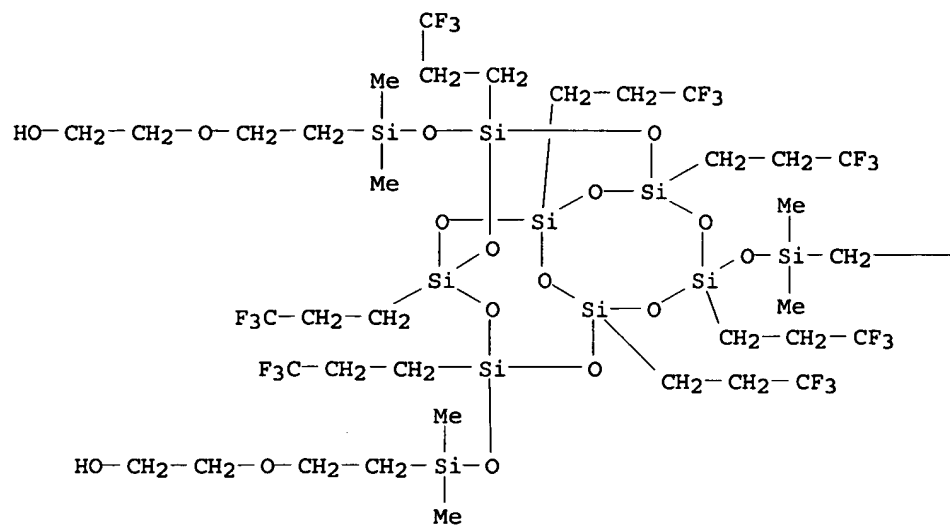
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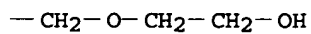
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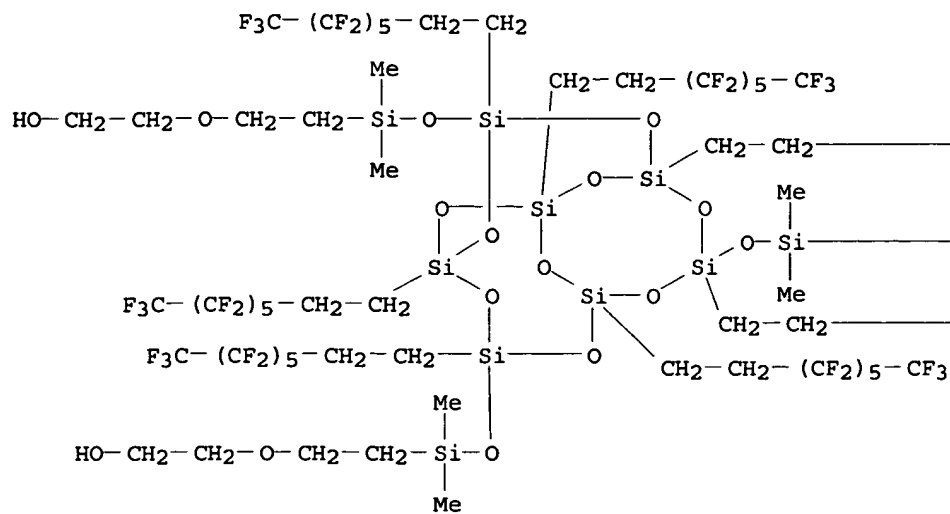


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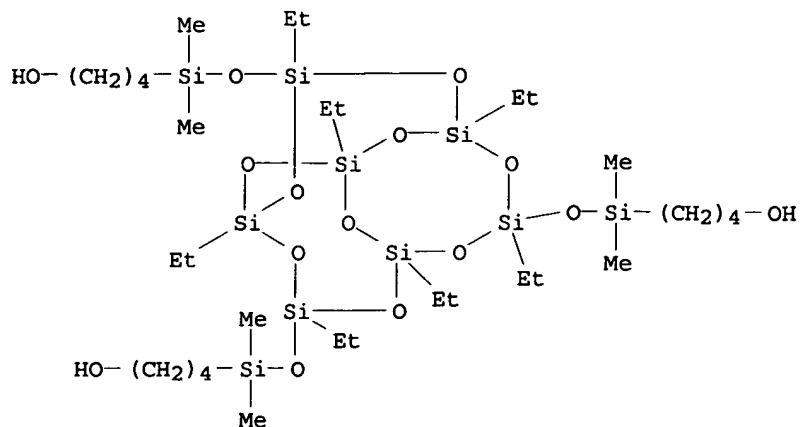


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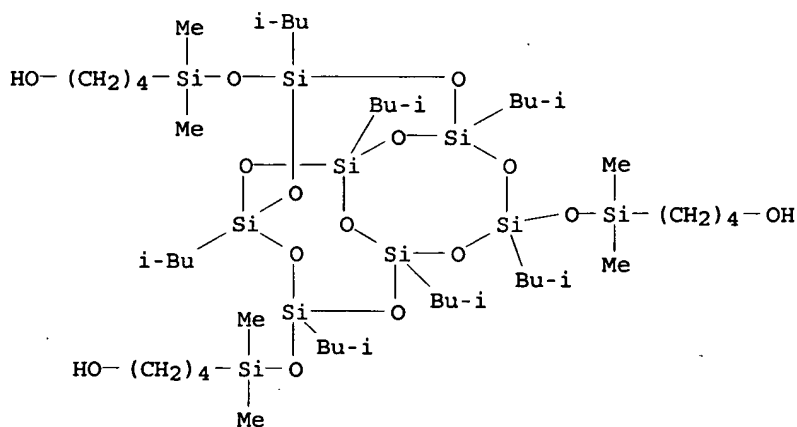
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(CA INDEX NAME)



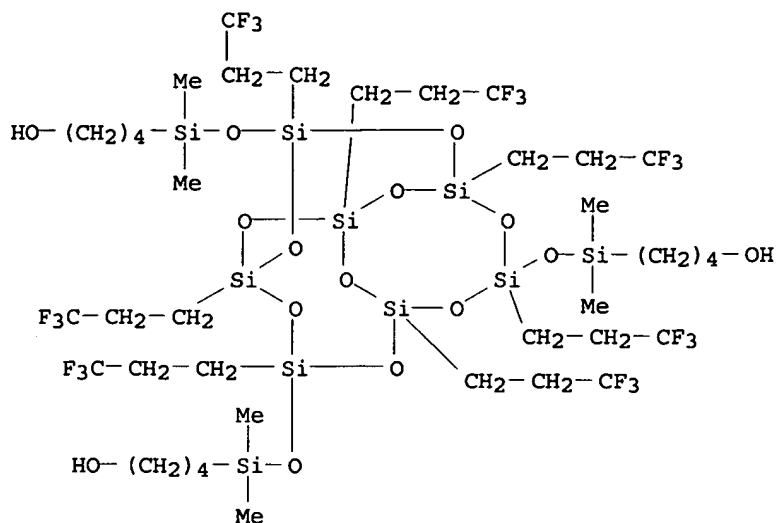
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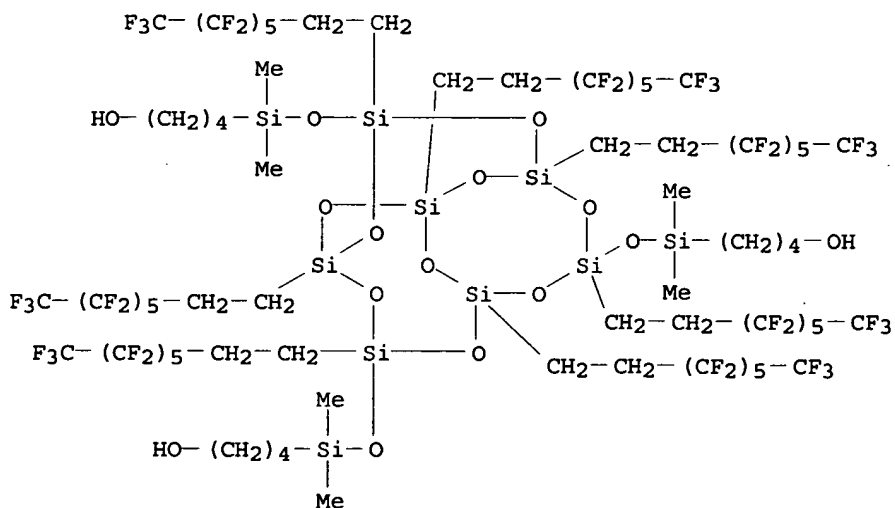
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RN 676229-50-8 HCAPLUS

CN 1-Butanol, 4,4',4''-[([1,3,5,7,9,11,14-heptakis(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triyl]tris[oxy(dimethylsilylene)]]tris- (9CI) (CA INDEX NAME)



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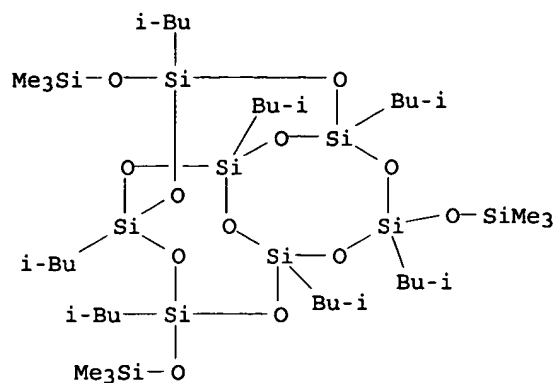
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RL: IMF (Industrial manufacture); MSC (Miscellaneous); PREP (Preparation)

(model compd.; prepn. of silicon compds. useful as polymn. initiators)

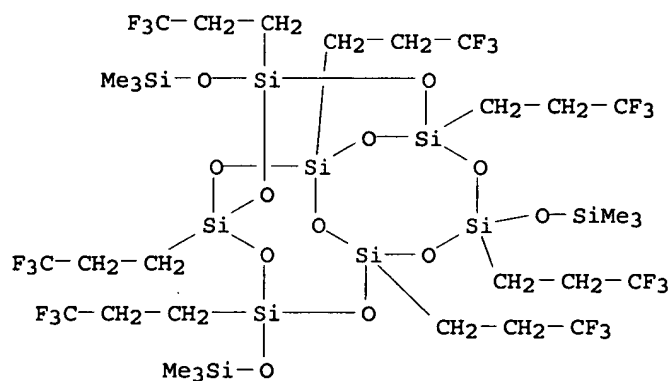
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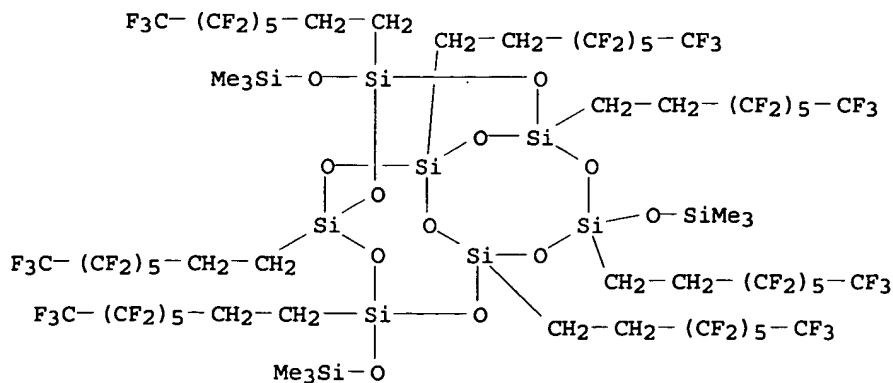
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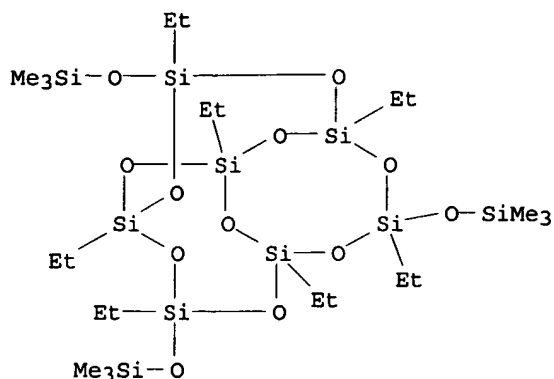
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RN 660392-77-8 HCAPLUS

CN Tricyclo[7.3.3.15,11]heptasiloxane, 1,3,5,7,9,11,14-heptaethyl-

3,7,14-tris[(trimethylsilyl)oxy]- (9CI) (CA INDEX NAME)



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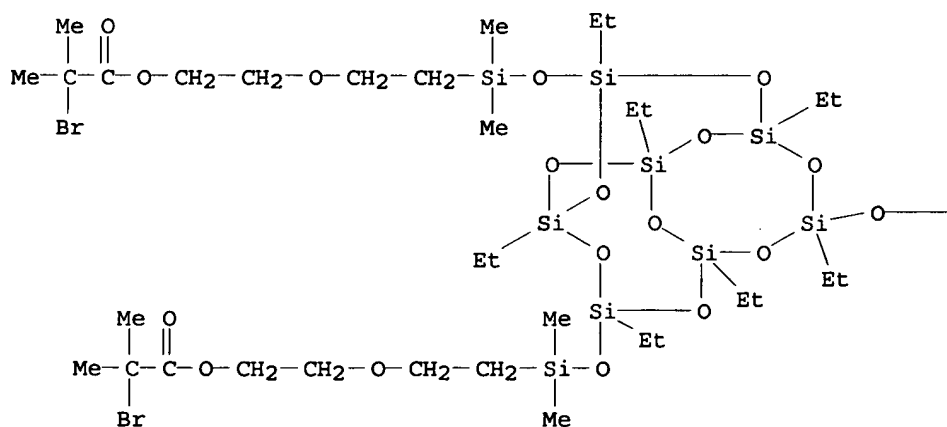
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(polymn. initiator; prepn. of silicon compds. useful as polymn. initiators)

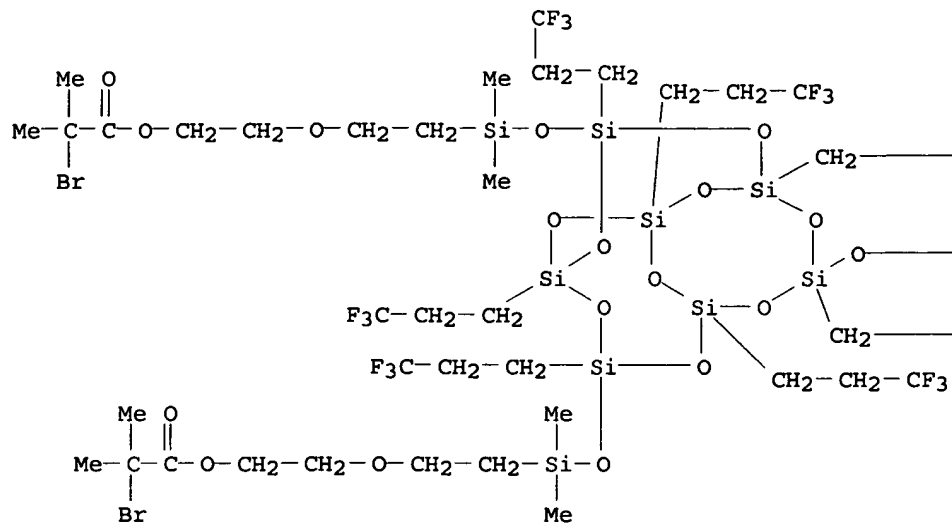
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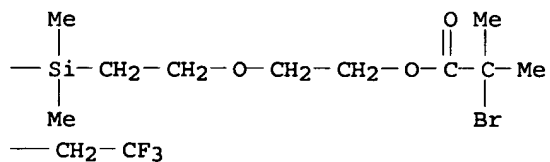
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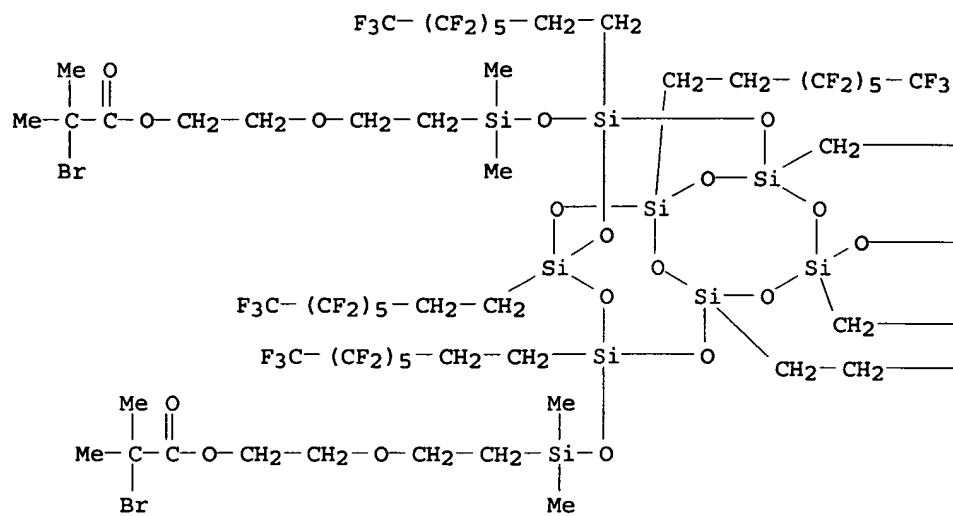
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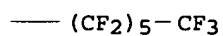
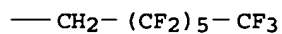
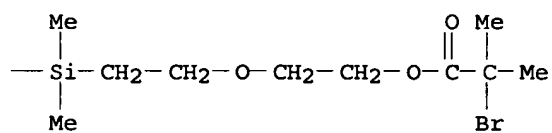
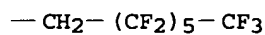
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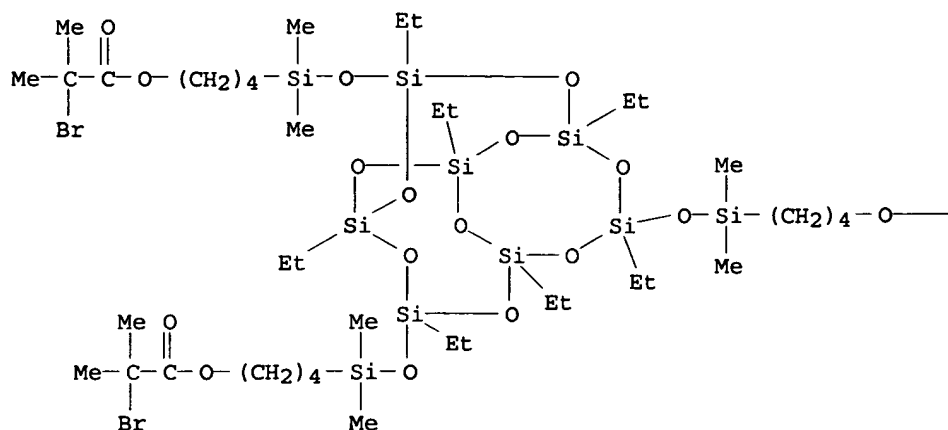
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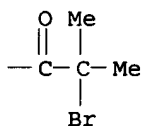
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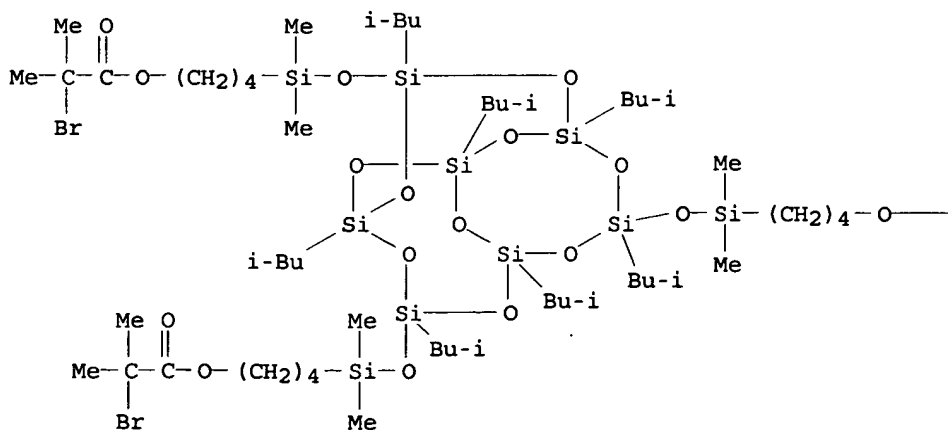
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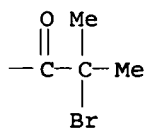
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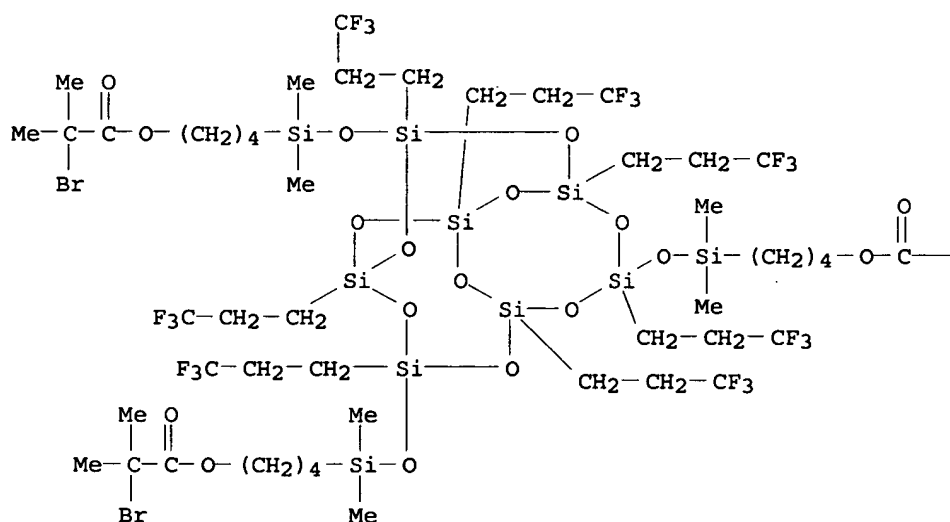
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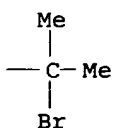
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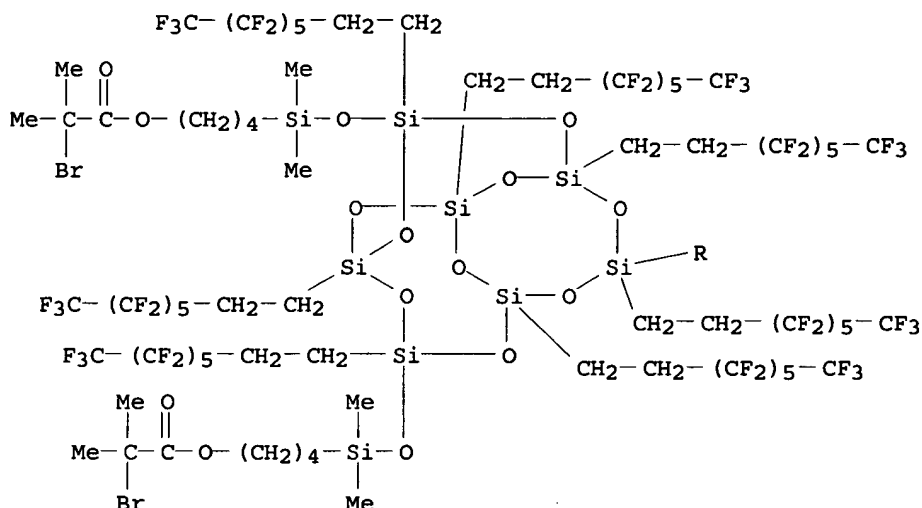


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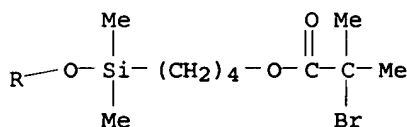


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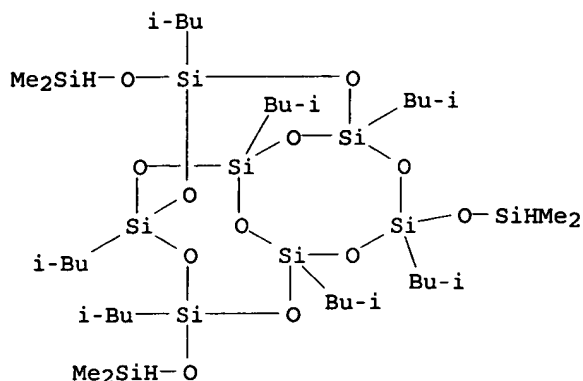
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PAGE 2-A

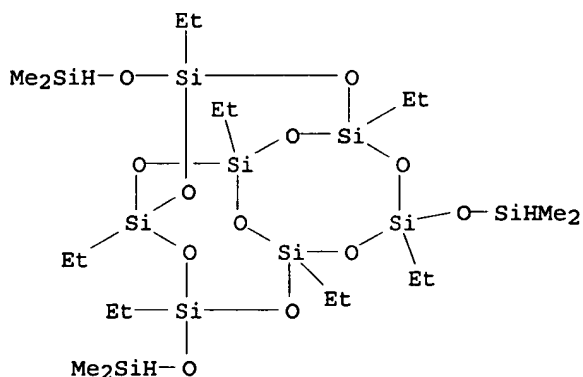


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 676229-37-1DP, reaction products with chloromethylstyrene and diethyldithiocarbamic acid sodium salt trihydrate
 676229-38-2DP, reaction products with chloromethylstyrene and diethyldithiocarbamic acid sodium salt trihydrate
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PREP (Preparation); USES (Uses)
 (polymn. initiator; prepn. of silicon compds. useful as polymn. initiators)
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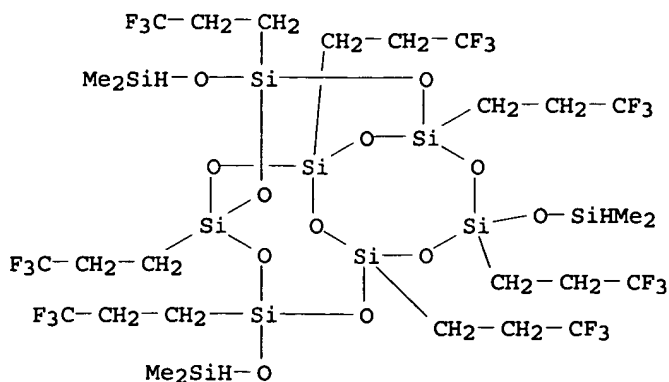
RN 676229-36-0 HCAPLUS

CN Tricyclo[7.3.3.15,11]heptasiloxane, 3,7,14-tris[(dimethylsilyl)oxy]-1,3,5,7,9,11,14-heptaethyl- (9CI) (CA INDEX NAME)



RN 676229-37-1 HCAPLUS

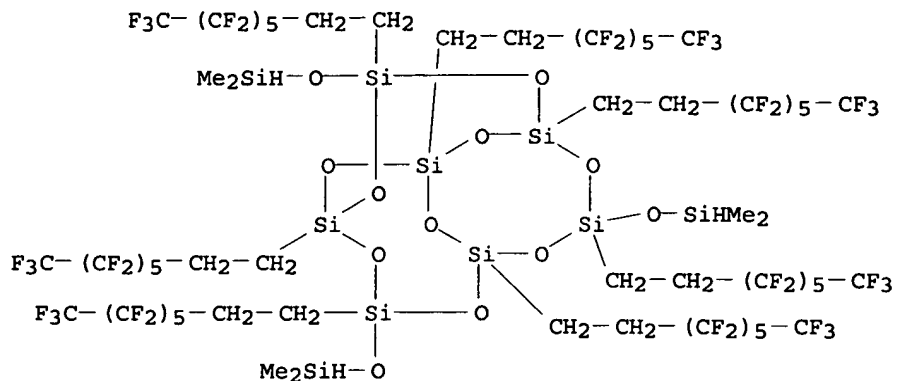
CN Tricyclo[7.3.3.15,11]heptasiloxane, 3,7,14-tris[(dimethylsilyl)oxy]-1,3,5,7,9,11,14-heptakis(3,3,3-trifluoropropyl)- (9CI) (CA INDEX NAME)



RN 676229-38-2 HCAPLUS

CN Tricyclo[7.3.3.15,11]heptasiloxane, 3,7,14-tris[(dimethylsilyl)oxy]-1,3,5,7,9,11,14-heptakis(3,3,4,4,5,5,6,6,7,7,8,8,8-tetradecafluorooctyl)-

tridecafluorooctyl)- (9CI) (CA INDEX NAME)

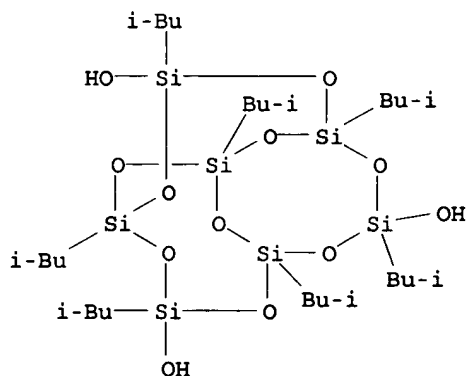


IT 307531-92-6 326621-07-2 656800-09-8
656800-15-6

RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of silicon compds. useful as polymn. initiators)

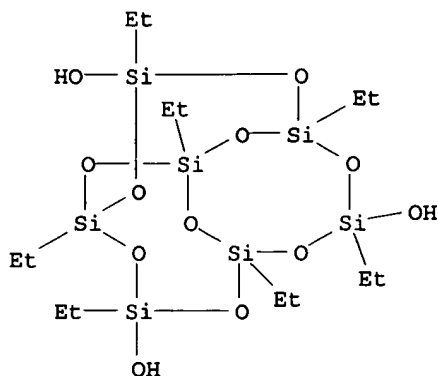
RN 307531-92-6 HCAPLUS

CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
1,3,5,7,9,11,14-heptakis(2-methylpropyl)- (9CI) (CA INDEX NAME)



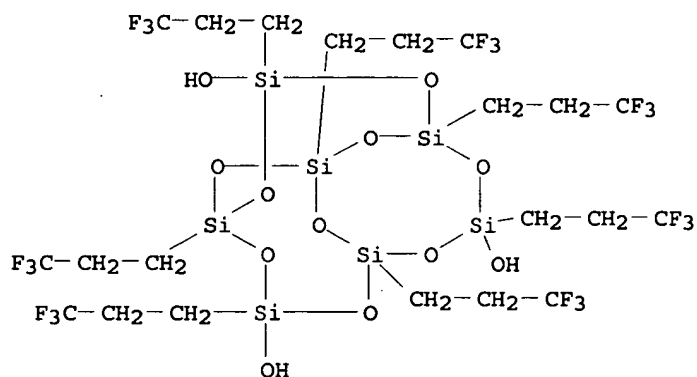
RN 326621-07-2 HCAPLUS

CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
1,3,5,7,9,11,14-heptaethyl- (9CI) (CA INDEX NAME)



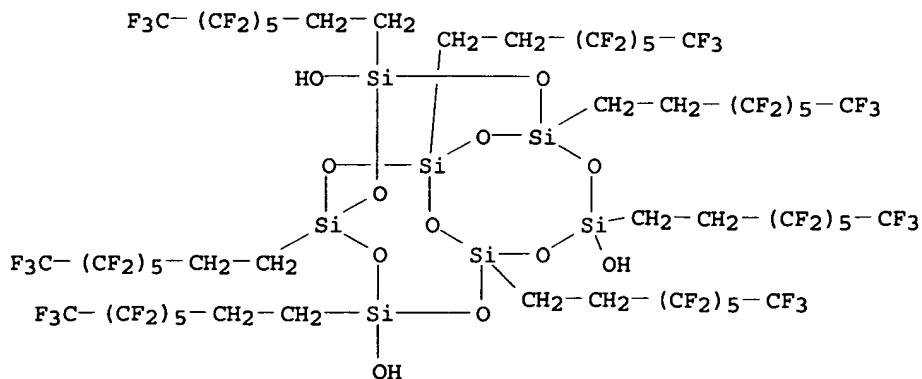
RN 656800-09-8 HCAPLUS

CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
1,3,5,7,9,11,14-heptakis(3,3,3-trifluoropropyl)- (9CI) (CA INDEX
NAME)



RN 656800-15-6 HCAPLUS

CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
1,3,5,7,9,11,14-heptakis(3,3,4,4,5,5,6,6,7,7,8,8,8-
tridecafluorooctyl)- (9CI) (CA INDEX NAME)



IC ICM C07F007-21

ICS C08F004-40; C08G077-38; C08G077-442

- CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 78
- IT 307496-30-6P 465499-97-2P 476635-00-4P 625417-05-2P
656800-11-2P 656800-14-5P 656800-17-8P
660392-75-6P 660392-76-7P 660426-07-3P 676229-30-4P
676229-31-5P 676229-33-7P 676229-35-9P 676229-36-0P
676229-37-1P 676229-38-2P 676229-39-3P
676229-40-6P 676229-41-7P 676229-42-8P
676229-43-9P 676229-44-0P 676229-45-1P
676229-46-2P 676229-47-3P 676229-48-4P
676229-49-5P 676229-50-8P 676235-02-2P
676235-03-3P 676235-04-4P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP
(Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of silicon compds. useful as polymn.
initiators)
- IT 118868-51-2P 444315-24-6P 476634-98-7P
656800-10-1P 656800-13-4P 656800-16-7P
660392-77-8P 660426-08-4P
RL: IMF (Industrial manufacture); MSC (Miscellaneous); PREP
(Preparation)
(model compd.; prepn. of silicon compds. useful as polymn.
initiators)
- IT 1592-20-7DP, 4-Chloromethylstyrene, hydrosilation products with
hydrogen-contg. silsesquioxane derivs., reaction products with
diethyldithiocarbamic acid sodium salt trihydrate 20624-25-3DP,
reaction products with chloro-contg. silsesquioxane derivs.
676229-32-6P 676229-34-8P 676229-51-9P 676229-52-0P
676229-53-1P 676229-54-2P 676229-55-3P
676229-56-4P 676229-57-5P 676229-58-6P
676229-59-7P 676229-60-0P 676229-61-1P
676229-62-2P 676235-05-5P 676235-06-6P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP
(Preparation); USES (Uses)
(polymn. initiator; prepn. of silicon compds. useful as
polymn. initiators)
- IT 307496-30-6DP, reaction products with chloromethylstyrene and
diethyldithiocarbamic acid sodium salt trihydrate
625417-05-2DP, reaction products with chloromethylstyrene
and diethyldithiocarbamic acid sodium salt trihydrate
676229-35-9DP, reaction products with chloromethylstyrene and
diethyldithiocarbamic acid sodium salt trihydrate
676229-36-0DP, reaction products with chloromethylstyrene
and diethyldithiocarbamic acid sodium salt trihydrate
676229-37-1DP, reaction products with chloromethylstyrene
and diethyldithiocarbamic acid sodium salt trihydrate
676229-38-2DP, reaction products with chloromethylstyrene
and diethyldithiocarbamic acid sodium salt trihydrate
676235-02-2DP, reaction products with chloromethylstyrene and
diethyldithiocarbamic acid sodium salt trihydrate
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(polymn. initiator; prepn. of silicon compds. useful as
polymn. initiators)
- IT 98-13-5, Phenyltrichlorosilane 111-45-5, Ethylene glycol monoallyl
ether 429-60-7, 3,3,3-Trifluoropropyltrimethoxysilane 627-27-0,
3-Buten-1-ol 1066-35-9, Dimethylchlorosilane 1592-20-7,
4-Chloromethylstyrene 2996-92-1, Phenyltrimethoxysilane
5314-55-6, Ethyltrimethoxysilane 17865-54-2,
Cyclohexyltrimethoxysilane 18395-30-7, Isobutyltrimethoxysilane
20624-25-3 20769-85-1, 2-Bromo-2-methylpropanoyl bromide
47904-22-3 51851-37-7, Tridecafluoro-1,1,2,2,-
tetrahydrooctyltriethoxysilane 88468-45-5,
Isooctyltrimethoxysilane 143487-47-2, Cyclopentyltrimethoxysilane
183387-28-2 307531-92-6 326621-07-2
444315-26-8 444619-08-3 656800-09-8 656800-15-6

RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of silicon compds. useful as polymn. **initiators**)

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L27 ANSWER 15 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:175813 HCAPLUS
 DOCUMENT NUMBER: 140:201166
 TITLE: Repairing of offset **printing** plates
 using curable compositions
 INVENTOR(S): Ohira, Satoshi; Muto, Kiyoshi
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004066708	A2	20040304	JP 2002-231090	20020808
			<--	
PRIORITY APPLN. INFO.:			JP 2002-231090	20020808
			<--	

AB Defects formed on **printing** surfaces of offset
printing plates are repaired by filling with curable liq.
 compns. and curing them. Thus, a defect of a **printing**
 plate was repaired using a UV-curable compn. comprising Aron Oxetane
 OX-SQ (oxetanyl silsesquioxane) 20, Aron Oxetane OXT 221 40, Epolead
 GT 301 25, KBM 303 10, and cationic polymn. **initiator** 5
 parts.

IT 663617-38-7
 RL: TEM (Technical or engineered material use); USES (Uses)
 (repairing of offset **printing** plates using curable
 compns.)

RN 663617-38-7 HCAPLUS

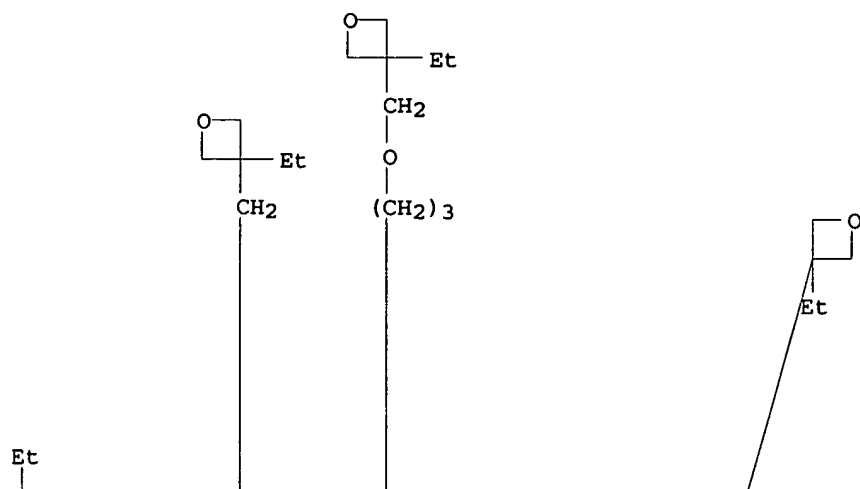
CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxane, octakis[3-[(3-ethyl-
 3-oxetanyl)methoxy]propyl]-, polymer with Epolead GT 301 and
 3,3'-[oxybis(methylene)]bis[3-ethyloxetane] (9CI) (CA INDEX NAME)

CM 1

CRN 505069-57-8

CMF C72 H136 O28 Si8

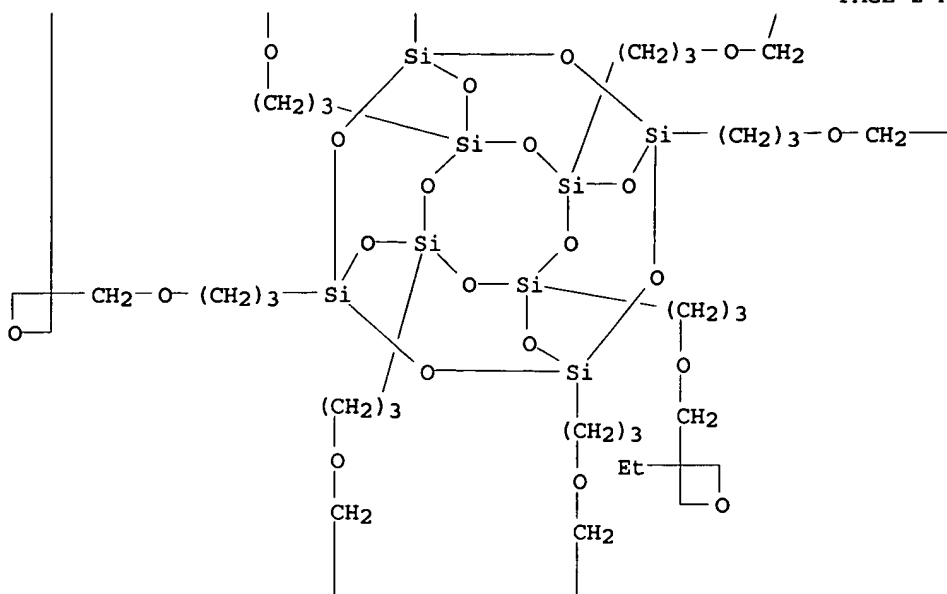
PAGE 1-A



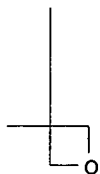
PAGE 1-B



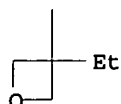
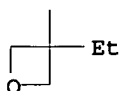
PAGE 2-A



PAGE 2-B



PAGE 3-A



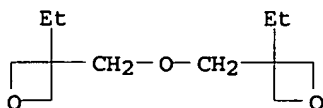
CM 2

CRN 163913-07-3
 CMF Unspecified
 CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 18934-00-4
 CMF C12 H22 O3



IC ICM B41N003-00
ICS B41C001-00; B41C001-02; B41M001-10; B41N001-12
CC 42-11 (Coatings, Inks, and Related Products)
Section cross-reference(s): 74
ST offset **printing** plate repairing curable compn; oxetane
epoxy offset **printing** plate repairing
IT Silsesquioxanes
RL: TEM (Technical or engineered material use); USES (Uses)
(epoxy-polyether-; repairing of offset **printing** plates
using curable compns.)
IT Polyethers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(epoxy-silsesquioxane-; repairing of offset **printing**
plates using curable compns.)
IT **Lithographic** plates
(offset; repairing of offset **printing** plates using
curable compns.)
IT Epoxy resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyether-silsesquioxane-; repairing of offset **printing**
plates using curable compns.)
IT **663617-38-7**
RL: TEM (Technical or engineered material use); USES (Uses)
(repairing of offset **printing** plates using curable
compns.)

L27 ANSWER 16 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:157631 HCAPLUS

DOCUMENT NUMBER: 140:201136

TITLE: UV-shielding multilayered film formation method
and containers therewith

INVENTOR(S): Maekawa, Susumu

PATENT ASSIGNEE(S): Nippon Paint Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004058408	A2	20040226	JP 2002-218617	20020726

PRIORITY APPLN. INFO.:

JP 2002-218617

20020726

AB Title method comprises forming thermoplastic resin- and UV
absorber-contg. compn. layers on substrates, then covering with
UV-curable compns., and curing with UV irradiation. A glass plate was
coated with a 3-glycidoxypyltrimethoxysilane-contg. acidic aq.
soln., left at room temp. for 5 min, sprayed with a compn. contg.
Epikote 1009 and isooctyl 3-(2H-benzotriazole-2-yl)-5-tert-butyl-4-
hydroxyphenyl propionate; dried at 100° for 2 min, covered
with a compn. contg. Light acrylate TMP 3EO-A, Light acrylate DCPA,

Aronix M 305/IPDI adduct, and an initiator, dried at 80°, and UV-cured to form a coated plate showing good adhesion to the coatings, pencil hardness 4 H, no whitening after soaking in 3% NaOH-contg. aq. soln. for 5 h, and 370-nm UV shielding ability 100%.

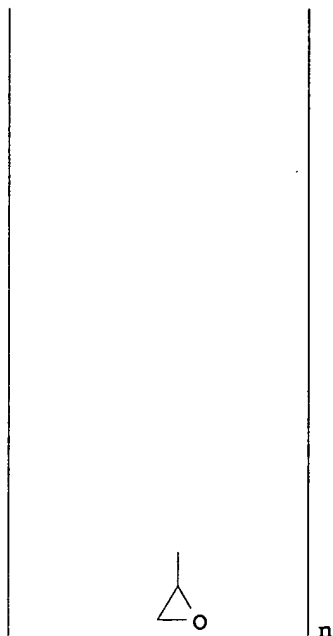
IT 162477-44-3P, 3-Glycidoxypropyltrimethoxysilane homopolymer, ladder, sru 602305-48-6P

RL: IMP (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(coupling agent layer; coatings consisting of UV absorber-contg. bottom and UV-curable top layers for glass containers with UV-shielding ability)

RN 162477-44-3 HCAPLUS

CN Poly[[1,3-bis[3-(oxiranylmethoxy)propyl]-1,3:1,3-disiloxanediylidene]-1,3-bis(oxy)] (9CI) (CA INDEX NAME)

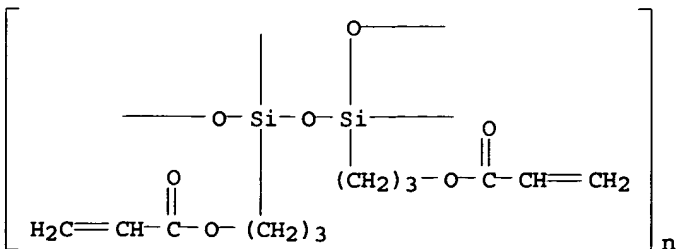
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *



PAGE 2-A

RN 602305-48-6 HCAPLUS

CN Poly[[1,3-bis[3-[(1-oxo-2-propenyl)oxy]propyl]-1,3:1,3-disiloxanediylidene]-1,3-bis(oxy)] (9CI) (CA INDEX NAME)



IC ICM B32B031-28

ICS B05D001-36; B05D003-06; B05D007-24; B65D023-08
 CC 42-10 (Coatings, Inks, and Related Products)
 IT 56325-93-0P, 3-Glycidoxypolytrimethoxysilane homopolymer
 160716-45-0P, 3-Acryloyloxypropyltrimethoxysilane homopolymer
 162477-44-3P, 3-Glycidoxypolytrimethoxysilane homopolymer,
 ladder, sru 602305-48-6P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (coupling agent layer; coatings consisting of UV absorber-contg.
 bottom and UV-curable top layers for glass containers with
 UV-shielding ability)

L27 ANSWER 17 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:143166 HCAPLUS

DOCUMENT NUMBER: 140:181981

TITLE: Silicone compound useful as polymerization
 initiator for living radical polymerization

INVENTOR(S): Ohno, Kohji; Tsujii, Yoshinobu; Fukuda, Takeshi

PATENT ASSIGNEE(S): Chisso Corporation, Japan

SOURCE: PCT Int. Appl., 94 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

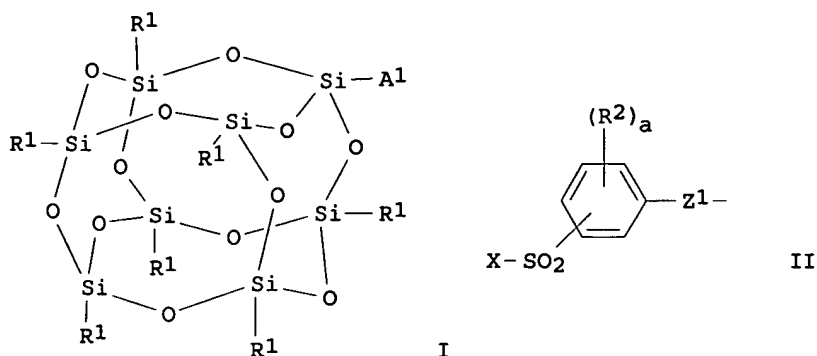
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004014924	A1	20040219	WO 2003-JP10084	20030807
<--				
W: JP, US				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
EP 1548020	A1	20050629	EP 2003-784585	20030807
<--				
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
US 2005288468	A1	20051229	US 2005-523702	20050309

PRIORITY APPLN. INFO.:

JP 2002-229790	A	20020807
<--		
JP 2002-378150	A	20021226
<--		
WO 2003-JP10084	W	20030807

OTHER SOURCE(S): MARPAT 140:181981
 GI



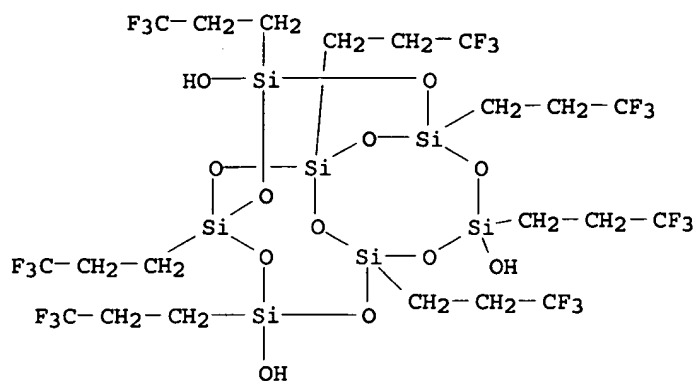
AB The present invention relates to silsesquioxane derivs. I, which are good living radical polymn. initiators, wherein R1 = independently H, alkyl, (un)substituted aryl, or (un)substituted arylalkyl; A1 = halogenated sulfonyl group-substituted org. group, preferably II; X = halogen; R2 = alkyl; a = 0-2 integer; and Z1 = a single bond or C1-10 alkylene. The silsesquioxanes initiate acrylic monomers and an acrylic polymer are formed from one site of the silsesquioxane structure. Since the halogenated sulfonyl group has strong electrophilicity, various silsesquioxane derivs. can be synthesized by reacting the silicon compd. with various nucleophilic reagents. The silicone compd. can hence be used as an intermediate useful in org. syntheses. Thus, 211.5 g phenyltrichlorosilane was hydrolyzed to give a silsesquioxane with wt. av. mol. wt. 3100, sodium hydroxide was added therein and reacted to give a sodium phenylsilsesquioxane, 10 g of which was reacted with 10.17 g 2-(4-chlorosulfonyl)ethyltrichlorosilane methylene chloride soln. to give a sulfonyl chloride-substituted phenylsilsesquioxane, which was used for the polymn. of Me methacrylate in the presence of L-sparteine and cuprous bromide, giving polymethyl methacrylate with conversion 6.51 mol%, Mn 3000, and polydispersity 1.11.

IT 656800-11-2P 656800-14-5P 660392-76-7P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; silicone compd. useful as polymn. initiators for living radical polymn.)

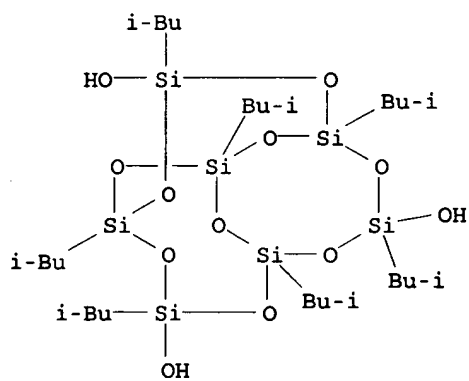
RN 656800-11-2 HCAPLUS

CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
1,3,5,7,9,11,14-heptakis(3,3,3-trifluoropropyl)-, trisodium salt
(9CI) (CA INDEX NAME)



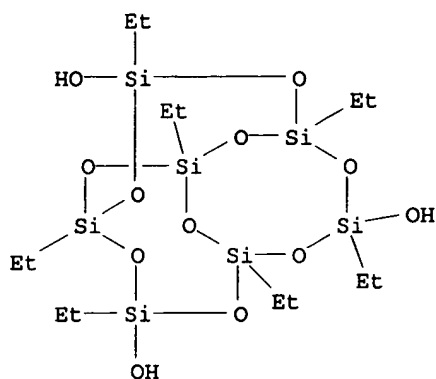
●3 Na

RN 656800-14-5 HCAPLUS
 CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
 1,3,5,7,9,11,14-heptakis(2-methylpropyl)-, trisodium salt (9CI) (CA
 INDEX NAME)



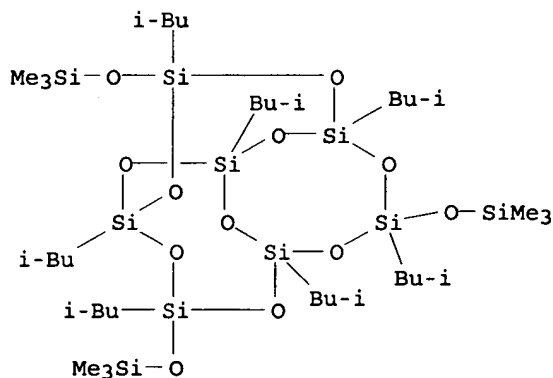
●3 Na

RN 660392-76-7 HCAPLUS
 CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
 1,3,5,7,9,11,14-heptaethyl-, trisodium salt (9CI) (CA INDEX NAME)

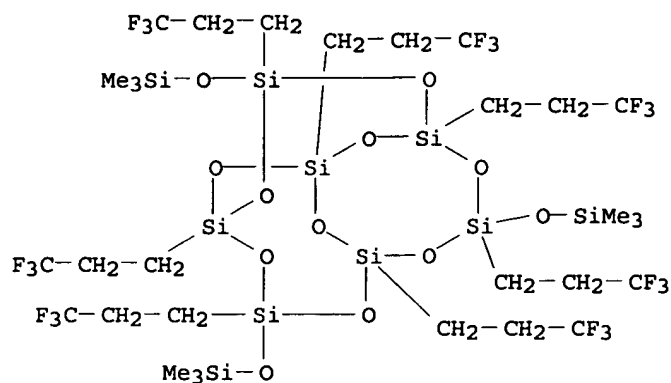


●3 Na

IT 444315-24-6P 656800-10-1P 660392-77-8P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (model compd.; silicone compd. useful as polymn.
 initiators for living radical polymn.)
 RN 444315-24-6 HCAPLUS
 CN Tricyclo[7.3.3.15,11]heptasiloxane, 1,3,5,7,9,11,14-heptakis(2-
 methylpropyl)-3,7,14-tris[(trimethylsilyl)oxy]- (9CI) (CA INDEX
 NAME)

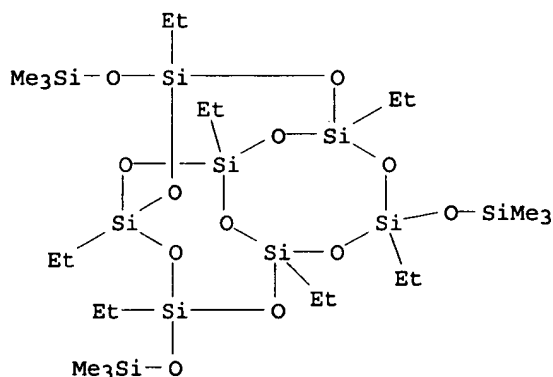


RN 656800-10-1 HCAPLUS
 CN Tricyclo[7.3.3.15,11]heptasiloxane, 1,3,5,7,9,11,14-heptakis(3,3,3-
 trifluoropropyl)-3,7,14-tris[(trimethylsilyl)oxy]- (9CI) (CA INDEX
 NAME)



RN 660392-77-8 HCAPLUS

CN Tricyclo[7.3.3.15,11]heptasiloxane, 1,3,5,7,9,11,14-heptaethyl-3,7,14-tris[(trimethylsilyl)oxy]- (9CI) (CA INDEX NAME)



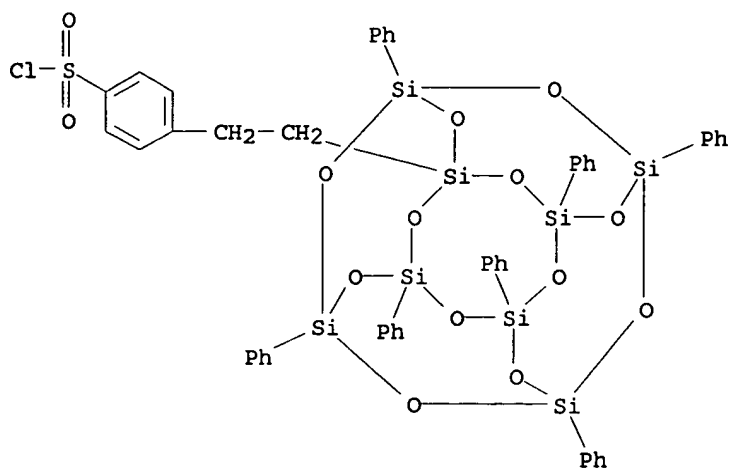
IT 660392-78-9P 660392-79-0P 660392-80-3P
660392-81-4P 660392-82-5P 660392-83-6P
660426-09-5P

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP
(Preparation); USES (Uses)

(polymn. initiator; silicone compd. useful as polymn.
initiators for living radical polymn.)

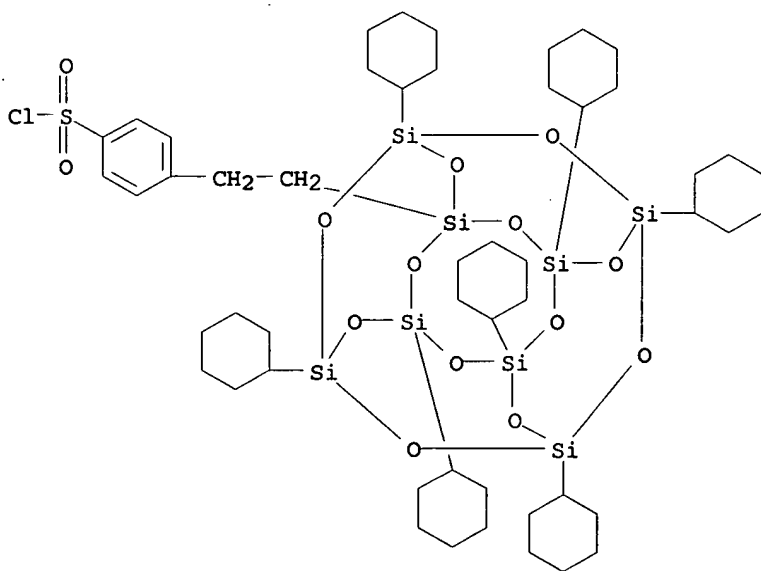
RN 660392-78-9 HCAPLUS

CN Benzenesulfonyl chloride, 4-[2-(heptaphenylpentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl)ethyl]- (9CI) (CA INDEX NAME)



RN 660392-79-0 HCAPLUS
 CN Benzenesulfonyl chloride, 4-[2-(heptacyclohexylpentacyclo[9.5.1.13,9.15.17,13]octasiloxanyl)ethyl]- (9CI) (CA INDEX NAME)

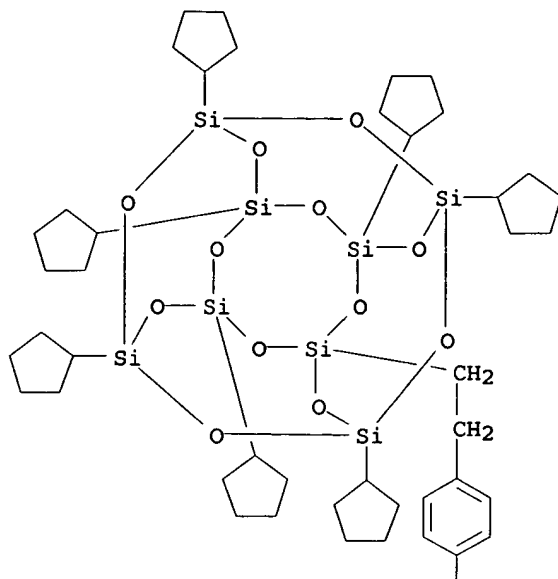
PAGE 1-A



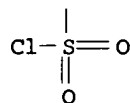
PAGE 2-A

RN 660392-80-3 HCAPLUS
 CN Benzenesulfonyl chloride, 4-[2-(heptacyclopentylpentacyclo[9.5.1.13,9.15.17,13]octasiloxanyl)ethyl]- (9CI) (CA INDEX NAME)

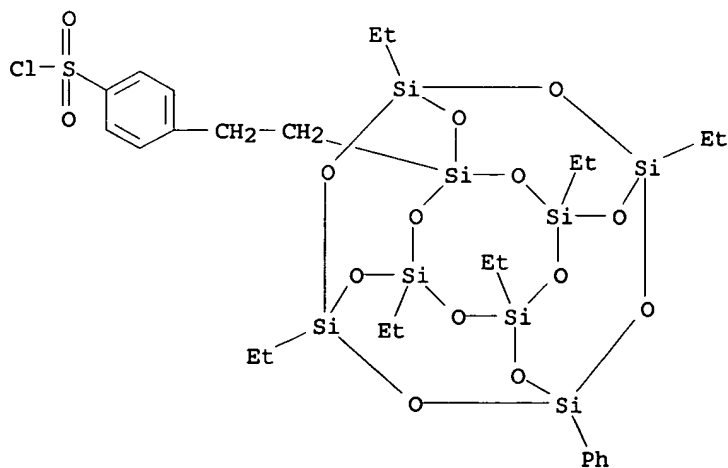
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PAGE 2-A



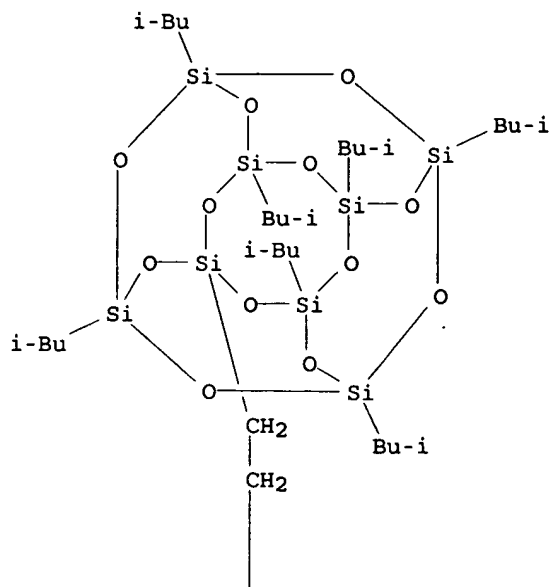
RN 660392-81-4 HCAPLUS
 CN Benzenesulfonyl chloride, 4-[2-(3,5,9,11,13,15-hexaethyl-7-phenylpentacyclo[9.5.1.13,9.15,15.17,13]octasiloxan-1-yl)ethyl]-(9CI) (CA INDEX NAME)



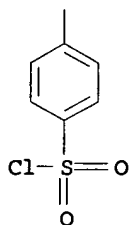
RN 660392-82-5 HCAPLUS
 CN Benzenesulfonyl chloride, 4-[2-[heptakis(2-methylpropyl)pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl]ethyl]-

(9CI) (CA INDEX NAME)

PAGE 1-A

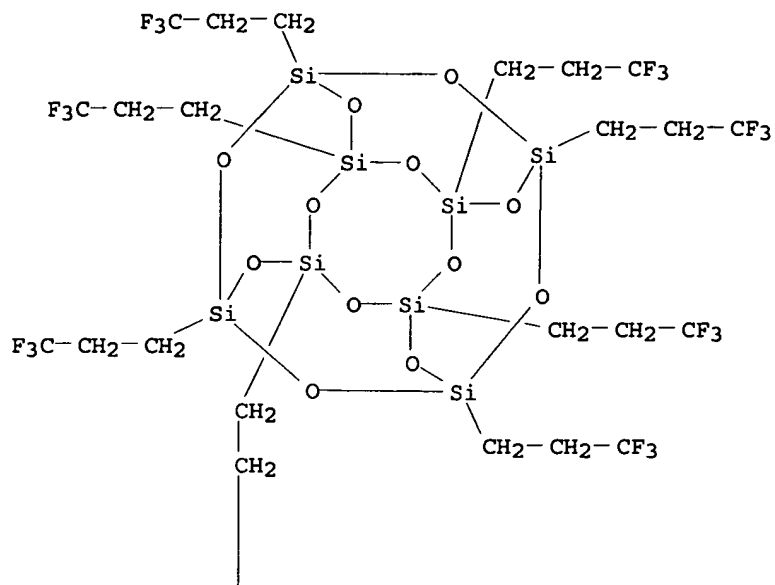


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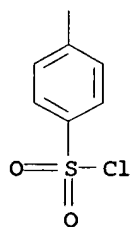


RN 660392-83-6 HCAPLUS
 CN Benzenesulfonyl chloride, 4-[2-[heptakis(3,3,3-trifluoropropyl)pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

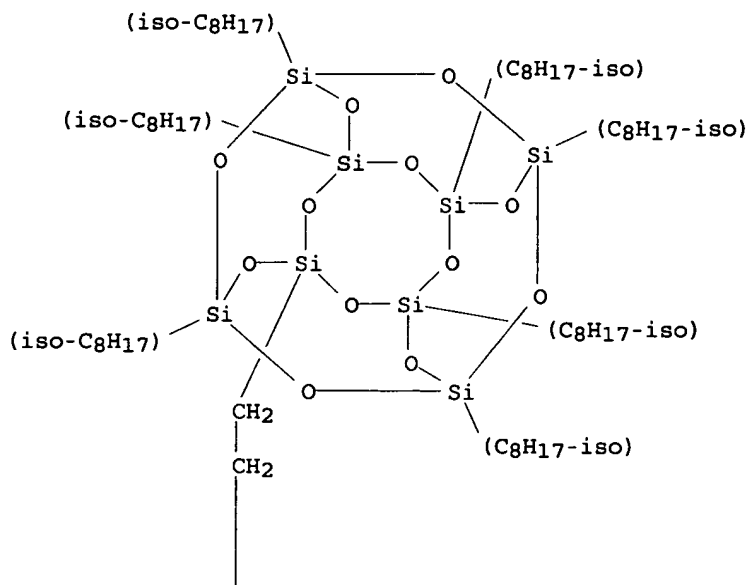


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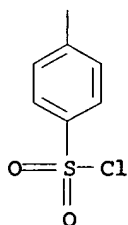


RN 660426-09-5 HCAPLUS
 CN Benzenesulfonyl chloride, 4-[2-(heptaisooctylpentacyclo[9.5.1.13,9.1
 5,15.17,13]octasiloxanyl)ethyl]- (9CI) (CA INDEX NAME)

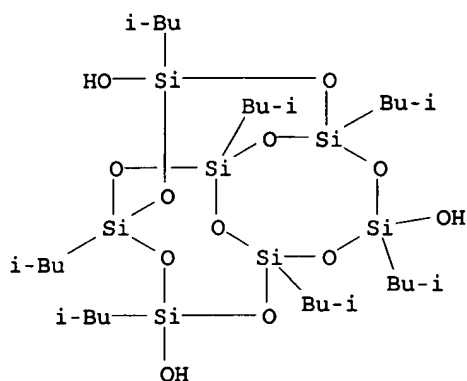
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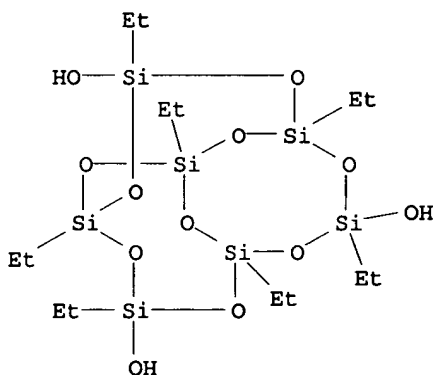
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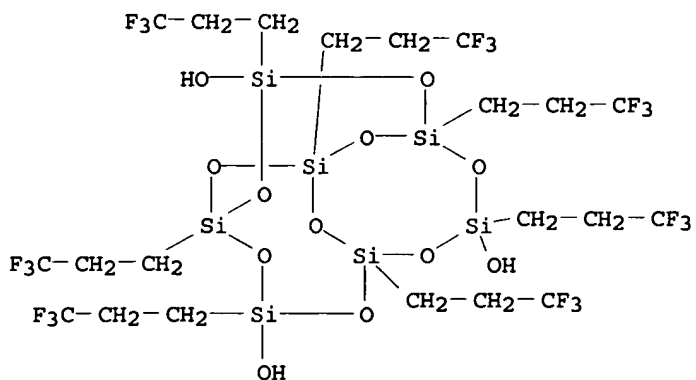
IT 307531-92-6 326621-07-2 656800-09-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant; silicone compd. useful as polymn. **initiators**
 for living radical polymn.)
 RN 307531-92-6 HCAPLUS
 CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
 1,3,5,7,9,11,14-heptakis(2-methylpropyl)- (9CI) (CA INDEX NAME)



RN 326621-07-2 HCAPLUS
 CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
 1,3,5,7,9,11,14-heptaethyl- (9CI) (CA INDEX NAME)



RN 656800-09-8 HCAPLUS
 CN Tricyclo[7.3.3.15,11]heptasiloxane-3,7,14-triol,
 1,3,5,7,9,11,14-heptakis(3,3,3-trifluoropropyl)- (9CI) (CA INDEX
 NAME)



IC ICM C07F007-21
 ICS C08F004-06; C08F012-04; C08F020-10; C08G077-28; C08G077-442
 CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 67

IT 465499-97-2P 476635-00-4P 656800-11-2P
 656800-14-5P 660392-75-6P 660392-76-7P
 660426-07-3P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 (intermediate; silicone compd. useful as polymn.
 initiators for living radical polymn.)

IT 118868-51-2P 444315-24-6P 476634-98-7P
 656800-10-1P 656800-13-4P 660392-77-8P
 660426-08-4P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (model compd.; silicone compd. useful as polymn.
 initiators for living radical polymn.)

IT 660392-78-9P 660392-79-0P 660392-80-3P
 660392-81-4P 660392-82-5P 660392-83-6P
 660426-09-5P
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)
 (polymn. initiator; silicone compd. useful as polymn.
 initiators for living radical polymn.)

IT 75-77-4, Chlorotrimethylsilane, reactions 98-13-5,
 Phenyltrichlorosilane 429-60-7 2996-92-1, Phenyltrimethoxysilane
 5314-55-6, Ethyltrimethoxysilane 17865-54-2,
 Cyclohexyltrimethoxysilane 18395-30-7, Isobutyltrimethoxysilane
 47904-22-3 79793-00-3, 2-(4-Chlorosulfonylphenyl)ethyltrichlorosil
 ane 88468-45-5, Isooctyltrimethoxysilane 143487-47-2,
 Cyclopentyltrimethoxysilane 183387-28-2 307531-92-6
 326621-07-2 444315-26-8 444619-08-3 656800-09-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant; silicone compd. useful as polymn. initiators
 for living radical polymn.)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN
 THE RE FORMAT

L27 ANSWER 18 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:980800 HCAPLUS

DOCUMENT NUMBER: 140:33668

TITLE: Organic-inorganic hybrid photocurable
 compositions

INVENTOR(S): Nguyen, My T.; Nazarov, Vadym

PATENT ASSIGNEE(S): American Dye Source, Inc., Can.

SOURCE: U.S., 6 pp.
 CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6664024	B1	20031216	US 2000-699506	200010 31
<--				
PRIORITY APPLN. INFO.:			US 2000-699506	200010 31
<--				

AB Described herein is a photocurable resin compn. for stereolithog.
 comprising (a) a photocurable component, liq. at room temp. and
 comprising a photopolymerizable substance selected from monomers,
 oligomers, dendrimers and polymers and mixts. thereof, (b) at least
 one photoinitiator compd., and (c) at least one

photoactivated color changing compd. The color changing compd. can be adapted to go from essentially colorless to a given color, one given color to another or from a given color to colorless. Optionally, the resin compn. will also contain component (d), namely at least one reactive silsesquioxanes (POSS).

IC ICM G03F007-075

INCL 430280100; 522170000

CC 74-6 (Radiation Chemistry, **Photochemistry**, and Photographic and Other Reprographic Processes)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 19 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:453757 HCAPLUS

DOCUMENT NUMBER: 139:308022

TITLE: Organic-inorganic hybrid materials from polysiloxanes and polysilsesquioxanes using controlled/living radical polymerization

AUTHOR(S): Pyun, Jeffrey; Xia, Jianhui; Matyjaszewski, Krzysztof

CORPORATE SOURCE: Department of Chemistry, Center for Macromolecular Engineering, Pittsburgh, PA, 15213, USA

SOURCE: ACS Symposium Series (2003), 838(Synthesis and Properties of Silicones and Silicone-Modified Materials), 273-284

CODEN: ACSMC8; ISSN: 0097-6156

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review summarizes the synthesis of polysiloxane materials contg. well-defined org. polymers using controlled/living radical polymn. techniques. In particular, the use of atom transfer radical polymn. (ATRP) enables the synthesis of a wide range of org./inorg. hybrid materials utilizing polysiloxane **macroinitiators**, or macromonomers in the polymn. of org. vinyl monomers. Hybrid block and graft copolymers have been prepd. contg. poly(dimethylsiloxane) (pDMS) segments, or **polyhedral oligomeric silsesquioxane (POSS)** groups. Hybrid nanoparticles composed of an inorg. colloidal core and an outer shell of tethered org. polymers have been synthesized via ATRP of vinyl monomers from polysilsesquioxane nanoparticle surfaces.

CC 35-0 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 29

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 20 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:271755 HCAPLUS

DOCUMENT NUMBER: 138:289151

TITLE: Radiation-curable odorless **inks** showing less volatile emission in heating and **printers** using the same

INVENTOR(S): Maeda, Mitsunobu; Shimada, Yasushi

PATENT ASSIGNEE(S): Brother Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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 JP 2003105077 A2 20030409 JP 2001-299825 200109
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 US 2003094738 A1 20030522 US 2002-234353 200209
 05
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 US 6866376 B2 20050315
 EP 1302499 A2 20030416 EP 2002-20073 200209
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 EP 1302499 A3 20040602
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
 PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
 US 2003218269 A1 20031127 US 2003-396321 200303
 26

PRIORITY APPLN. INFO.:

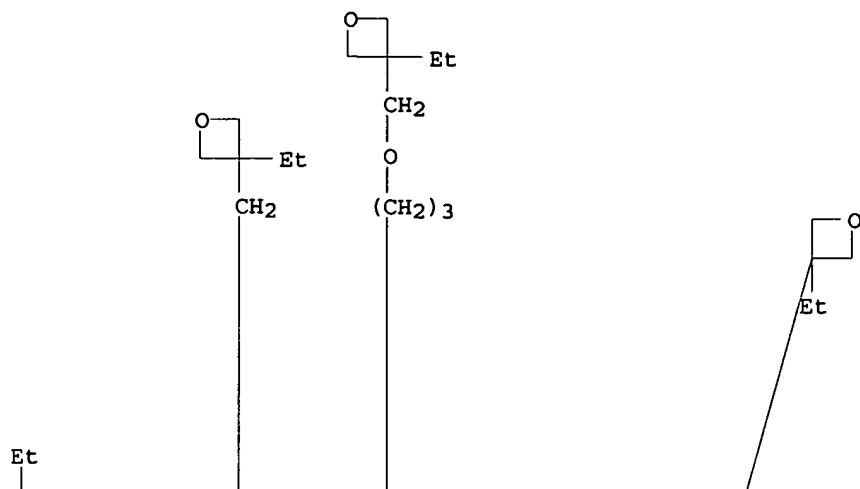
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 JP 2001-299825 A 200109
 28
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 JP 2002-93986 A 200203
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 JP 2002-93988 A 200203
 29
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 US 2002-234353 A2 200209
 05

AB The **inks** contain oxetane compds., photocationic polymn.
initiators (e.g., onium salts), and their monomers excluding
 vinyl ethers and oxetanes. Thus, an **ink** contg. UVR 6110
 (3,4-epoxycyclohexylmethyl-3,4-epoxycyclohexane carboxylate) 30,
 limonene dioxide 30, Aron Oxetane OXT 101 (3-ethyl-3-
 hydroxymethyloxetane) 40, and UVI 6990 (50% triarylsulfonium
 hexafluorophosphate) 4 parts was applied on a polyester film at
 15-µm thick and cured by 2-pass UV irradiation at 80 mW/cm² to give a
 film having the mentioned advantage.
 IT 505069-58-9P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (radiation-curable odorless **inks** contg. oxetane compds.
 and showing less volatile emission in heating)
 RN 505069-58-9 HCAPLUS
 CN 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 7-
 oxabicyclo[4.1.0]hept-3-ylmethyl ester, polymer with
 octakis[3-[(3-ethyl-3-oxetanyl)methoxy]propyl]pentacyclo[9.5.1.13.9.
 15,15,17,13]octasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 505069-57-8
 CMF C72 H136 O28 Si8

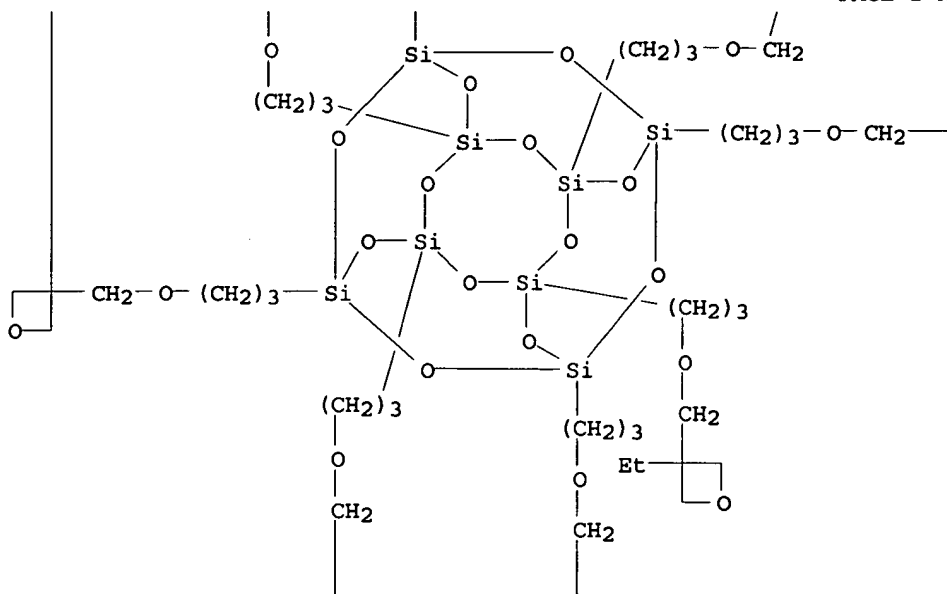
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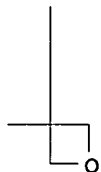
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PAGE 2-A



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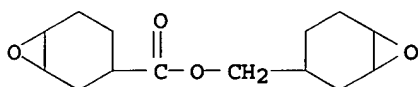


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CM 2

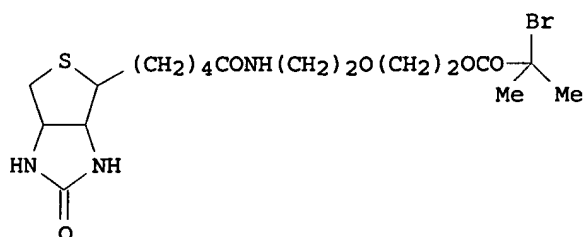
CRN 2386-87-0
CMF C14 H20 O4



IC ICM C08G065-18
ICS B41J002-01; C08G059-68; C09D011-10
CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 74
ST photocationically curable odorless printing ink

- oxetane; volatile emission suppressed radiation curable ink
; epoxycyclohexylmethylepoxycyclohexane carboxylate
ethylhydroxymethylloxetane radiation curable ink
- IT Polymerization catalysts
(cationic, photochem.; radiation-curable odorless inks
contg. oxetane compds. and showing less volatile emission in
heating)
- IT Phenolic resins, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(epoxy, oxetane-contg.; radiation-curable odorless inks
contg. oxetane compds. and showing less volatile emission in
heating)
- IT Epoxy resins, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(phenolic, oxetane-contg.; radiation-curable odorless
inks contg. oxetane compds. and showing less volatile
emission in heating)
- IT Onium compounds
RL: CAT (Catalyst use); TEM (Technical or engineered material use);
USES (Uses)
(photocationic polymn. catalysts; radiation-curable odorless
inks contg. oxetane compds. and showing less volatile
emission in heating)
- IT Inks
(printing, radiation-curable; radiation-curable
odorless inks contg. oxetane compds. and showing less
volatile emission in heating)
- IT Printing apparatus
(radiation-curable odorless inks contg. oxetane compds.
and showing less volatile emission in heating)
- IT 104558-95-4, Cyacure UVI 6990
RL: CAT (Catalyst use); TEM (Technical or engineered material use);
USES (Uses)
(photopolymn. initiators; radiation-curable odorless
inks contg. oxetane compds. and showing less volatile
emission in heating)
- IT 184877-11-0P 232259-63-1P 298695-61-1P 331633-82-0P
505069-58-9P 505072-87-7P 505072-88-8P
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(radiation-curable odorless inks contg. oxetane compds.
and showing less volatile emission in heating)

L27 ANSWER 21 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:222535 HCAPLUS
DOCUMENT NUMBER: 139:281116
TITLE: Synthesis of shell crosslinked nanoparticles
(SCKs) that present surface-attached biotin
AUTHOR(S): Qi, Kai; Ma, Qinggao; Remsen, Edward E.; Wooley,
Karen L.
CORPORATE SOURCE: Department of Chemistry, Washington University,
Saint Louis, MO, 63130, USA
SOURCE: PMSE Preprints (2003), 88, 48-49
CODEN: PPMRA9; ISSN: 1550-6703
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
GI



AB An initiator (I) with a biotin moiety was prepd. and used to generate end-functionalized homo- diblock copolymer by atom transfer radical polymn. Use of these biotinylated block copolymers with nonfunctionalized analogs in mixed micelle methodologies affords the prepn. of well-defined micelles and SCK nanoparticles that posses varying amts. of biotin presented from and accessible to the surface. These biotinylated SCK nanoparticles can be used as a model system to study polyvalent interactions between the SCK nanoparticles and biol. systems, which can occur over nanoscopic surface contact areas.

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 26, 35

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 22 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:210952 HCAPLUS

DOCUMENT NUMBER: 138:321897

TITLE: Swelling behavior of surface-attached neutral and charged polymer brushes

AUTHOR(S): Biesalski, Markus A.; Ruhe, Jurgen

CORPORATE SOURCE: Institute for Microsystem Technology (IMTEK), University of Freiburg, Freiburg, 79110, Germany

SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2003), 44(1), 472-473

CODEN: ACPPAY; ISSN: 0032-3934

PUBLISHER: American Chemical Society, Division of Polymer Chemistry

DOCUMENT TYPE: Journal; (computer optical disk)

LANGUAGE: English

AB We study the swelling behavior of neutral poly(4-vinyl pyridine) (PVP), charged poly(N-methyl-4-vinyl pyridinium iodide) (MePVP), and charged poly(methacrylic acid) (PMAA) brushes in soln. The polymer layers were prepd. by a surface-initiated polymn., using an immobilized initiator and constructing the polymer brush in situ by free radical chain polymn. By using multiple-angle null-ellipsometry we are able to study the segment d. distribution and the height of the swollen brushes as a function of the graft d. of the surface-attached chains, the pH, and the ionic strength of the soln. The thickness of the neutral swollen brush (PVP) increases with graft d. whereas the thickness of the highly charged polyelectrolyte (MePVP) brush in pure water is almost independent of the graft d. In addn., polyelectrolyte brushes exhibit an electrolyte-induced collapse with increasing ionic strength. Finally, weak polyacid brushes posses structural changes upon changes in the pH of the environment.

CC 36-7 (Physical Properties of Synthetic High Polymers)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 23 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2003:148872 HCAPLUS
 DOCUMENT NUMBER: 139:22581
 TITLE: Synthesis of organic-inorganic star-shaped polyoxazolines using octafunctional silsesquioxane as an initiator
 AUTHOR(S): Kim, Kyung-Min; Ouchi, Yuko; Chujo, Yoshiki
 CORPORATE SOURCE: Graduate School of Engineering, Department of Polymer Chemistry, Kyoto University, Sakyo-ku, Kyoto, 606-8501, Japan
 SOURCE: Polymer Bulletin (Berlin, Germany) (2003), 49(5), 341-348
 CODEN: POBUDR; ISSN: 0170-0839
 PUBLISHER: Springer-Verlag
 DOCUMENT TYPE: Journal
 LANGUAGE: English

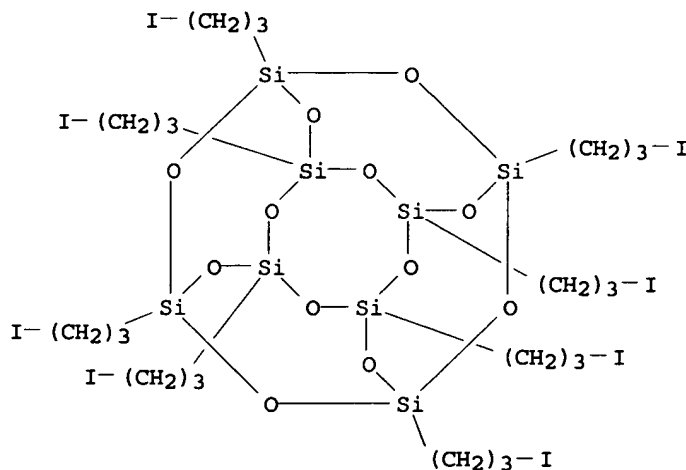
AB Hybrid star-shaped polyoxazolines having POSS core were prepd. by ring-opening polymn. of 2-methyl-2-oxazoline using various octafunctional POSS as an initiator with changing the feed ratio of POSS to 2-methyl-2-oxazoline. The core-first method, which uses an active multifunctional core to initiate growth of polymer chains, was applicable to make hybrid POSS-core star-shaped polyoxazolines. The kinetic rate of the polymn. and the structures of hybrid star-shaped polyoxazolines were characterized by gas chromatog. (GC) and ¹H NMR, resp. Their thermal properties were investigated in detail by differential scanning calorimetry (DSC) and thermogravimetric anal. (TGA).

IT 161678-43-9

RL: CAT (Catalyst use); USES (Uses)
 (synthesis of org.-inorg. star-shaped polyoxazolines using octafunctional silsesquioxane as an initiator)

RN 161678-43-9 HCAPLUS

CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxane, octakis(3-iodopropyl)- (9CI) (CA INDEX NAME)



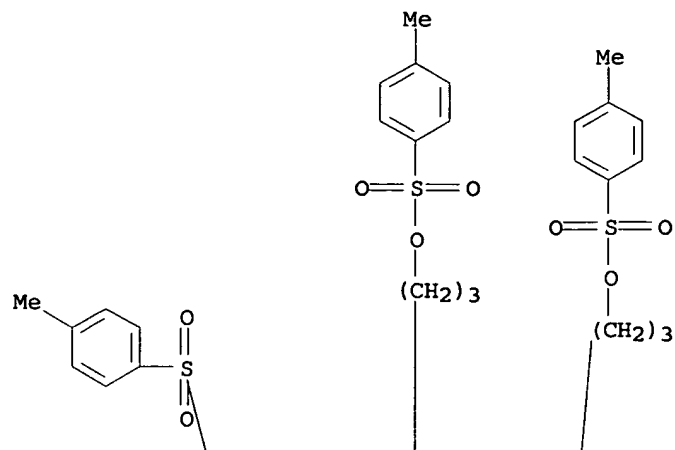
IT 538370-93-3P 538370-94-4P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (synthesis of org.-inorg. star-shaped polyoxazolines using octafunctional silsesquioxane as an initiator)

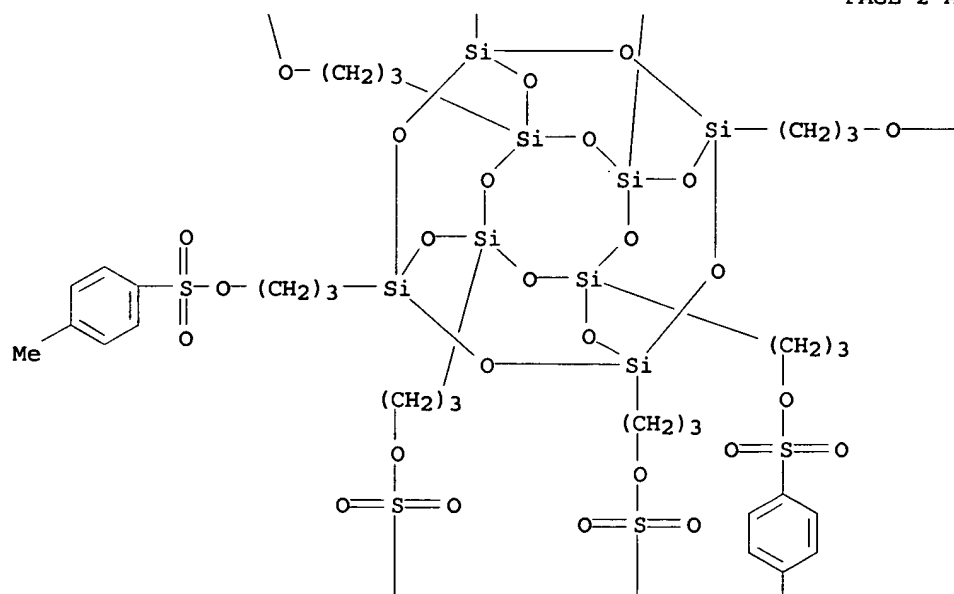
RN 538370-93-3 HCAPLUS

CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxaneoctapropanol, octakis(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

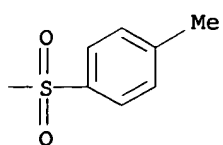
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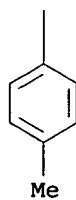
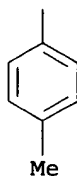
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PAGE 2-B

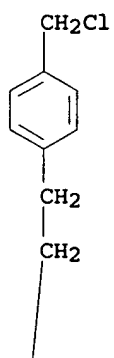
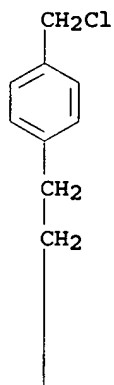
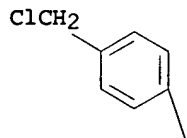


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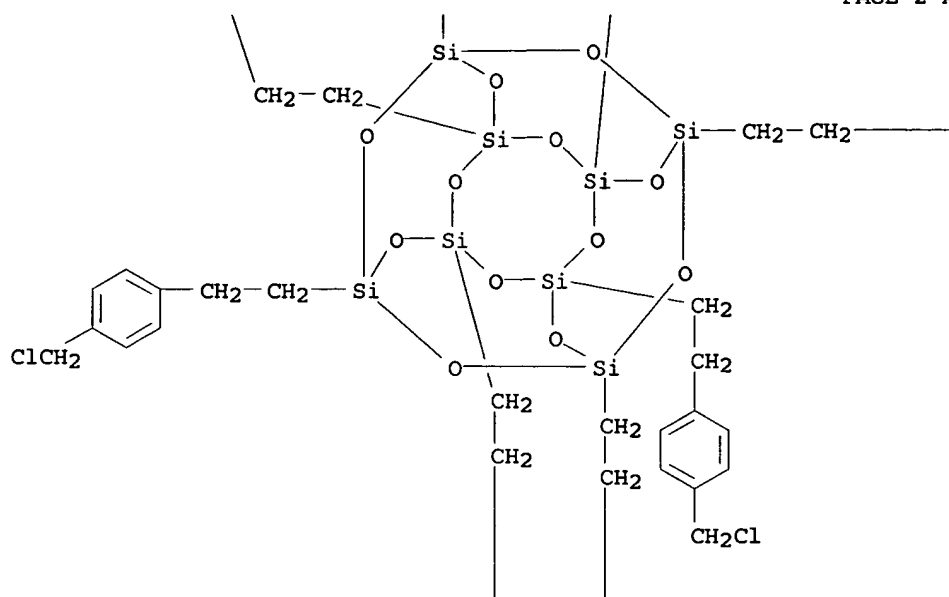


RN 538370-94-4 HCAPLUS
 CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxane, octakis[2-[4-(chloromethyl)phenyl]ethyl]- (9CI) (CA INDEX NAME)

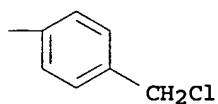
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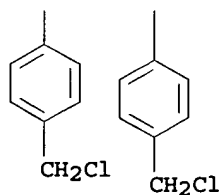
PAGE 2-A



PAGE 2-B



PAGE 3-A

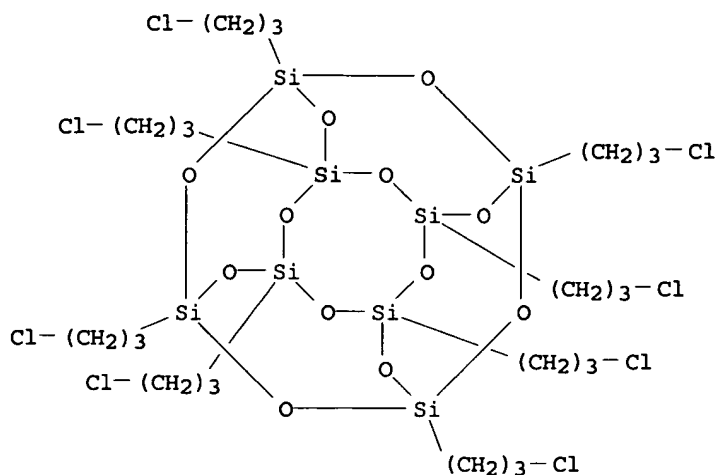


IT 161678-38-2

RL: RCT (Reactant); RACT (Reactant or reagent)
 (synthesis of org.-inorg. star-shaped polyoxazolines using
 octafunctional silsesquioxane as an initiator)

RN 161678-38-2 HCAPLUS

CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxane, octakis(3-
 chloropropyl)- (9CI) (CA INDEX NAME)



CC 35-7 (Chemistry of Synthetic High Polymers)

IT 161678-43-9

RL: CAT (Catalyst use); USES (Uses)

(synthesis of org.-inorg. star-shaped polyoxazolines using octafunctional silsesquioxane as an initiator)

IT 538370-93-3P 538370-94-4P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(synthesis of org.-inorg. star-shaped polyoxazolines using octafunctional silsesquioxane as an initiator)

IT 281-50-5 1592-20-7, 4-Vinylbenzyl chloride 161678-38-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(synthesis of org.-inorg. star-shaped polyoxazolines using octafunctional silsesquioxane as an initiator)

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 24 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:42320 HCAPLUS

DOCUMENT NUMBER: 138:90253

TITLE: Preparation of cage silsesquioxanes as photoinitiators

INVENTOR(S): Yamahiro, Mikio; Yoshida, Kazuhiro; Yamamoto, Yasuhiro; Watanabe, Kenichi; Ootake, Nobumasa

PATENT ASSIGNEE(S): Chisso Corp., Japan

SOURCE: PCT Int. Appl., 97 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003004549	A1	20030116	WO 2002-JP6821	20020704
W: JP, US US 2005049381	A1	20050303	US 2004-482816	20040204

PRIORITY APPLN. INFO.:

JP 2001-205173 A 200107
05
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JP 2001-223001 A 200107
24
<--
WO 2002-JP6821 W 200207
04
<--

OTHER SOURCE(S): MARPAT 138:90253

AB Compds. (Aa) (R1)bHc[(R2R3SiO)eSiO3/2]2n [A = group having ability to initiate polymn. of monomer, preferably a group bearing haloalkylphenyl, MgBr or dithiocarbamate group; R1 = C2-10 alkyl; R2, R3 = C1-8 alkyl, Ph, cyclohexyl; n = 2-30; e = 0, 1; a = an integer of 1 to 2n; b, c = an integer of 0 to (2n-1), where a + b + c = 2n] useful for manuf. of hybrid org.-inorg. materials are prepd. Thus, a soln. contg. 0.2 g octakis[(N,N-diethyldithiocarbamoylmethyl)phenylethyl]octasilsesquioxane, 15.1 mL Me methacrylate, 32.7 mL PhMe, and 2.5 mL decane was irradiated by UV for 30 min to give a polymer having Mw 15,000, Mn 6200, Tg 110°, and decompn. temp. 288°.

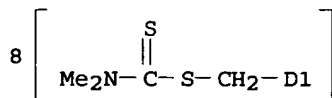
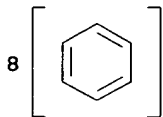
IT 485381-57-5P

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(prepn. of cage silsesquioxanes as **photoinitiators**)

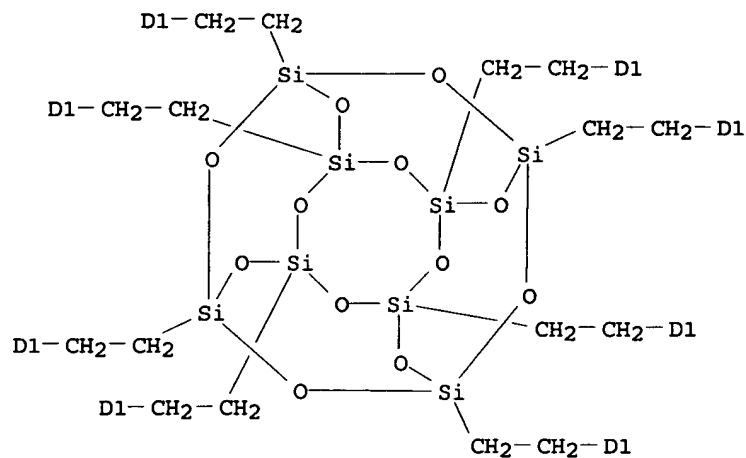
RN 485381-57-5 HCAPLUS

CN Carbamodithioic acid, dimethyl-, pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxane-1,3,5,7,9,11,13,15-octayloctakis(2,1-ethanediyphenylenemethylene) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



IT 485381-54-2P

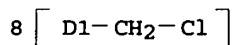
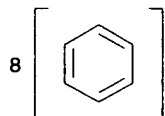
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of cage silsesquioxanes as **photoinitiators**)

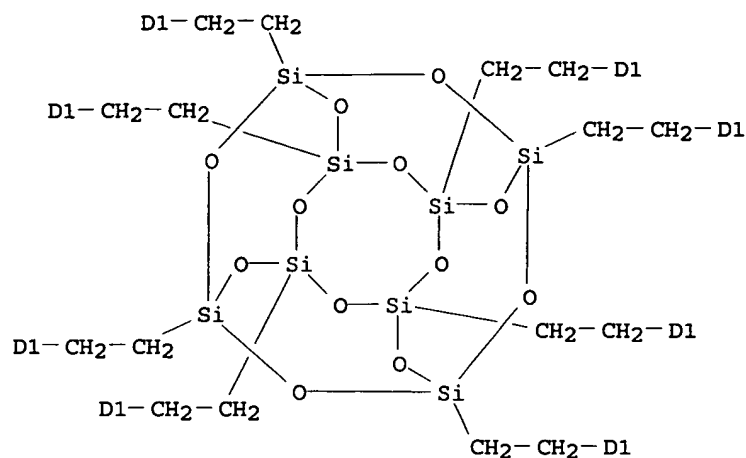
RN 485381-54-2 HCAPLUS

CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxane, octakis[2-[(chloromethyl)phenyl]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



IC ICM C08G077-392
 ICS C08F004-00; C07F007-18; C08F002-46
 CC 35-3 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 28, 29, 67
 IT 485381-57-5P 485381-62-2P
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)
 (prepn. of cage silsesquioxanes as photoinitiators)
 IT 281-50-5P, Hydrogenoctasilsesquioxane 357933-28-9P
 485381-54-2P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 (prepn. of cage silsesquioxanes as photoinitiators)
 REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L27 ANSWER 25 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:748159 HCAPLUS
 DOCUMENT NUMBER: 137:279967
 TITLE: A low cost method for fabrication of composite
 materials having three-dimensional wiring
 pattern
 INVENTOR(S): Hiraoka, Toshiro; Hotta, Yasuyuki; Asakawa,
 Koji; Mataka, Shigeru
 PATENT ASSIGNEE(S): Toshiba Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002285342	A2	20021003	JP 2001-92715	200103 28
JP 3548130	B2	20040728		
US 2003022102	A1	20030130	US 2002-91481	200203 07

US 6899999 B2 20050531 <--
 PRIORITY APPLN. INFO.: JP 2001-92715 A 200103
 28

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 JP 2001-93668 A 200103
 28

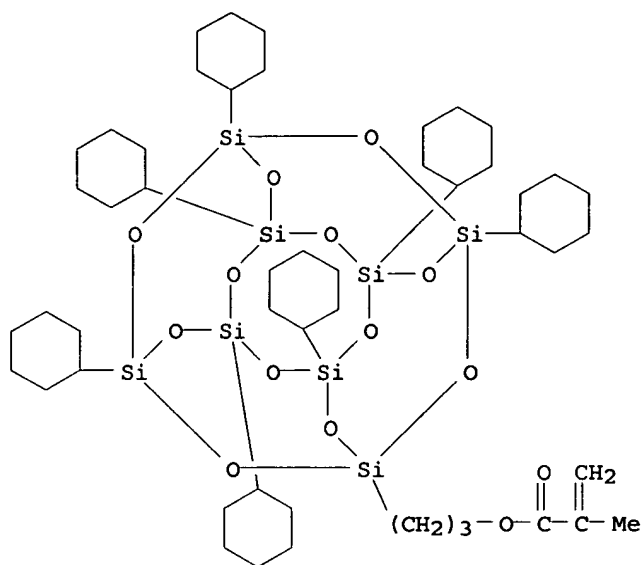
AB The method comprises steps of: (1) forming a photosensitive layer (A) in the insulator from a photosensitive compd. contg. groups capable of ion-exchanging under energy line and a crosslinkable compd., (2) exposing A under light to form a pattern, (3) further crosslinking A in the exposed part, (4) making metal ions or metal colloids adsorbed in the pattern contg. ion-exchangeable groups, and then (5) on this pattern forming a conductive pattern by performing electroless deposition. Thus, mixing BTTB (a carbperoxoic acid ester) with a copolymer of Me methacrylate and vinylethylene and NKX-653 (a photosensitizer) in a ratio of 10:10:1 in a cyclohexanone-toluene mixt. solvent gave a 1% soln., which was coated on a hydrophilically-treated PTFE porous sheet to give an A, which was then exposed under Ar ion laser light, impregnated in 0.01 M sodium borohydride aq. soln. for 30 min, followed by in 0.5 M aq. CuSO₄ soln. for 30 min, washed, impregnated again in 0.01 M sodium borohydride aq. soln. for 30 min, taken to copper plating (using electroless deposition liq. PS-503 at 25° for 3 h) to give a title material. The composite materials can be useful for electronic devices, e.g., flexible boards, integrated circuits, multilayer wiring boards, etc.

IT 467225-87-2P
 RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
 (photosensitive layer; fabrication of composite materials having three-dimensional wiring pattern)

RN 467225-87-2 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 3-(heptacyclohexylpentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl)propyl ester, polymer with tetrahydro-2H-pyran-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

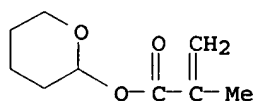
CRN 169391-90-6
 CMF C49 H88 O14 Si8



CM 2

CRN 52858-59-0

CMF C9 H14 O3



IC ICM C23C018-20
ICS H05K003-18; H05K003-46

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 74, 76

IT **Printed circuit boards**
(composite materials contg. photosensitive layer and having three-dimensional wiring pattern)

IT 311819-19-9
RL: CAT (Catalyst use); USES (Uses)
(**photoinitiator**; fabrication of composite materials having three-dimensional wiring pattern)

IT 158259-53-1P, Poly(2-cyano-2-(p-vinylphenyl) butanoic acid)
467225-86-1P 467225-87-2P 467225-88-3P
RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(photosensitive layer; fabrication of composite materials having three-dimensional wiring pattern)

L27 ANSWER 26 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:727130 HCAPLUS

DOCUMENT NUMBER: 137:249162

TITLE: Water-resistant acrylic polymer emulsions and their manufacture in presence of organosilicon compounds

INVENTOR(S): Imashiro, Hideki

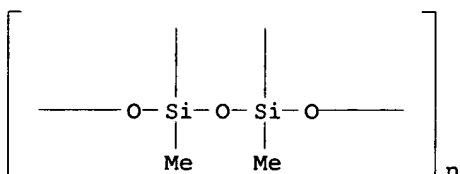
PATENT ASSIGNEE(S): Chuo Rika Kogyo Corporation, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002275203	A2	20020925	JP 2001-81952	20010322

PRIORITY APPLN. INFO.: JP 2001-81952 20010322

AB The emulsions are manufd. by emulsion polymn. of polymerizable monomers mainly contg. acrylic monomers in the presence of organosilicon compds., water-sol. azo polymn. initiators, and water-insol. polymn. initiators. Thus, Me methacrylate, 2-ethylhexyl acrylate, methacrylic acid, and 2-hydroxyethyl methacrylate were emulsion-polymd. in the presence of KC 89 (methyltrimethoxysilane oligomer), AIBN, and 4,4'-azobis-4-cyanovaleric acid. The obtained emulsion was mixed with ammonia, defoamer, and antiseptic agent, coated on a glass plate, and cured to give a water resistant coating.

IT 153315-80-1P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (manuf. of water-resistant acrylic polymer emulsions in presence of organosilicon compds. and two kinds of initiators)
 RN 153315-80-1 HCAPLUS
 CN Poly[(1,3-dimethyl-1,3:1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI)
 (CA INDEX NAME)



IC ICM C08F002-22
 ICS C08F002-44; C08F004-04; C08F020-00
 CC 42-7 (Coatings, Inks, and Related Products)
 IT 153315-80-1P 350686-39-4P, 2-Ethylhexyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate copolymer ammonium salt
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (manuf. of water-resistant acrylic polymer emulsions in presence of organosilicon compds. and two kinds of initiators)

L27 ANSWER 27 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:633388 HCAPLUS
 DOCUMENT NUMBER: 137:295290
 TITLE: Two-photon microstructure-polymerization initiated by a coumarin derivative, titanocene and N-phenylglycine system
 AUTHOR(S): Yang, Yongyuan; Feng, Shujing; Li, Chengde; Lao,

CORPORATE SOURCE: Le; Wang, Shufeng; Huang, Wentao; Gong, Qihuang
Technical Institute of Physics and Chemistry,
Chinese Academy of sciences, Beijing, 10010,
Peop. Rep. China

SOURCE: Journal of Photopolymer Science and Technology (2002), 15(1), 83-88
CODEN: JSTEEW; ISSN: 0914-9244

PUBLISHER: Technical Association of Photopolymers, Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Two-photon polymn. initiated by a tri mol. initiating system composed of 7-diethylamino-3-(2'-benzimidazolyl)coumarin, titanocene, and N-phenylglycine was investigated. The photosensitizer was proved to posses large two-photon absorption cross-section for 800 nm femtosecond laser. The sensitizer/coinitiator system has high photosensitivity for polymn. of photosensitive resin. This photopolymer system was used for fabricating three-dimensional microstructure. ZrCl₄.

CC 35-3 (Chemistry of Synthetic High Polymers)

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 28 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:607661 HCAPLUS

DOCUMENT NUMBER: 137:156161

TITLE: Aqueous dispersions, their manufacture, coating materials having excellent storage stability, and coated bodies

INVENTOR(S): Tamori, Koji; Ishizuki, Kenji

PATENT ASSIGNEE(S): JSR Ltd., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 20 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002226507	A2	20020814	JP 2001-25150	20010201

PRIORITY APPLN. INFO.: JP 2001-25150 20010201

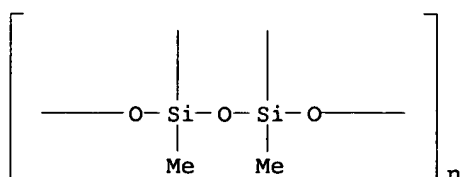
AB The dispersions are manufd. by mixing (A) R₁nSi(OR₂)_{4-n} (R₁ = Ph, C₁-8 hydrocarbyl; R₂ = C₁-5 alkyl, C₁-6 acyl; n = 0-2), their hydrolyzates, or condensation products 1-99, (B) radically polymerizable monomers 1-99 (A + B = 100 parts), emulsifiers 1-5, water 50-2000, hydrolysis catalysts for A component 0.01-5 parts, hydrolyzing the A component, reducing emulsion av. particle diam. to ≤0.5 μm, adding 0.01-5 parts radical initiators, and radically polymg. Thus, 100 parts a polymer dispersion manufd. from MeSi(OMe)₃ 7, Me₂Si(OMe)₂ 6, SX 101 [manufd. from MeSi(OMe)₃ and Me₂Si(OMe)₂] 18, Me methacrylate 4.7, Bu methacrylate 3.3, cyclohexyl methacrylate 2.7, 2-hydroxyethyl methacrylate 0.8, diacetoneacrylamide 6.7, sodium dodecylbenzenesulfonate 6.7, water 46, 80% acrylic acid 0.7, and potassium persulfate 2.0 parts was mixed with 6.9 parts 10% aq. soln. of adipic dihydrazide and 2 parts 10% aq. soln. of dibutyltin laurate to give a coating showing pencil hardness 2H.

IT 153315-80-1P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(X 40-9220, interpenetrating networks; aq. dispersions, their manuf., coating materials having good storage stability, and coated bodies)

RN 153315-80-1 HCAPLUS

CN Poly[(1,3-dimethyl-1,3:1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI)
(CA INDEX NAME)



IC ICM C08F002-24

ICS C08F002-44; C08F020-00; C09D005-02; C09D133-02; C09D157-00;
C09D183-04

CC 42-7 (Coatings, Inks, and Related Products)

IT 153315-80-1P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(X 40-9220, interpenetrating networks; aq. dispersions, their manuf., coating materials having good storage stability, and coated bodies)

L27 ANSWER 29 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:441290 HCAPLUS

DOCUMENT NUMBER: 137:21574

TITLE: Ionization radiation-curable hard coat compositions containing ladder siloxane oligomers and coated articles therefrom

INVENTOR(S): Sugisaki, Toshio; Onosawa, Yutaka

PATENT ASSIGNEE(S): Lintec Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

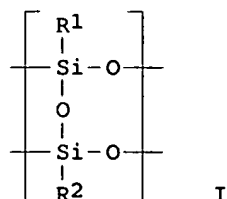
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

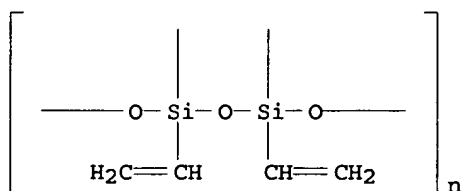
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002167552	A2	20020611	JP 2000-364662	20001130
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PRIORITY APPLN. INFO.:			JP 2000-364662	20001130
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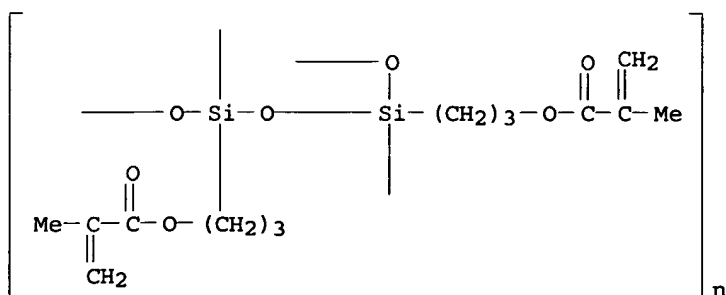
GI



- AB The hard coat compns. having excellent weather resistance, friction resistance, and transparency contain silsesquioxane oligomers having no.-av. mol. wt. 1000-30,000 and bearing mer units shown as I [R1 = (CH₂)_nOC(O)CH:CH₂, (CH₂)_nOC(O)CMe:CH₂, CH:CH₂, n = 1-10 integer; R2 = R1, (substituted) C1-6 alkyl, (substituted) arom. group] and optionally ionization radiation-curable (meth)acrylates and photopolymn. **initiators**. Thus, 100 parts (solid) 3-methacryloyloxypropyltrimethoxysilane oligomer in PhMe was mixed with 5.0 parts 1-hydroxycyclohexyl Ph ketone to give a hard coat compn., which was applied on a poly(ethylene terephthalate) film (A 4100), dried at 80°, and exposed to UV to give a hard coat showing excellent adhesion to steel wool abrasion and no crack formation in accelerated weather resistance test.
- IT 156430-49-8P 159338-14-4P, 3-Methacryloyloxypropyltrimethoxysilane homopolymer, ladder stru
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (UV-curable hard coat compns. contg. ladder siloxane oligomers)
- RN 156430-49-8 HCAPLUS
- CN Poly[(1,3-diethenyl-1,3:1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI)
 (CA INDEX NAME)



- RN 159338-14-4 HCAPLUS
- CN Poly[[1,3-bis[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]-1,3:1,3-disiloxanediylidene]-1,3-bis(oxy)] (9CI) (CA INDEX NAME)



IC ICM C09D183-07

ICS C08F002-50; C08F283-12; C08F290-14; C08F299-08; C08G077-20;
C09D005-00

CC 42-10 (Coatings, Inks, and Related Products)

IT 29382-69-2P, Vinyltrimethoxysilane homopolymer 52004-97-4P,
3-Methacryloyloxypropyltrimethoxysilane homopolymer
156430-49-8P 159338-14-4P, 3-
Methacryloyloxypropyltrimethoxysilane homopolymer, ladder sru
RL: IMF (Industrial manufacture); POF (Polymer in formulation); RCT
(Reactant); PREP (Preparation); RACT (Reactant or reagent); USES
(Uses)
(UV-curable hard coat compns. contg. ladder siloxane oligomers)

L27 ANSWER 30 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:407171 HCAPLUS

DOCUMENT NUMBER: 137:13272

TITLE: Presensitized lithographic master
plates containing silane-based electron donors
for IR laser platemaking

INVENTOR(S): Shimada, Kazuto; Sorori, Tadahiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002156755	A2	20020531	JP 2000-353151	200011 20

PRIORITY APPLN. INFO.: JP 2000-353151
200011
20

OTHER SOURCE(S): MARPAT 137:13272

AB The plates, showing superior photosensitivity in platemaking, have
neg.-working photoimaging layers contg. onium-salt-type photopolymn.
initiators, photothermal converters, unsatd. monomers, and
silanes ABCDESi-M+ (M = cation; A-E = monovalent nonmetal atom) on
supports.

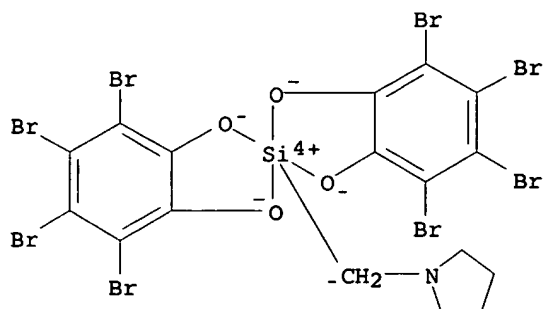
IT 140143-58-4

RL: CAT (Catalyst use); TEM (Technical or engineered material use);
USES (Uses)

(photopolymn. accelerators; presensitized lithog.
master plates contg. silane-based electron donors for heat-mode
laser platemaking)

RN 140143-58-4 HCAPLUS

CN Silicate(1-), (1-pyrrolidinylmethyl)bis[3,4,5,6-tetrabromo-1,2-
benzenediolato(2-)-κO,κO']-, hydrogen, (TB-5-11)- (9CI)
(CA INDEX NAME)



● H⁺

- IC ICM G03F007-029
ICS B41N001-14; C08F002-50; C08F004-42; G03F007-00; G03F007-004;
G03F007-027; G03F007-075
- CC 74-6 (Radiation Chemistry, **Photochemistry**, and
Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
- ST presensitized lithog master onium initiator
accelerator; electron donating silane PS plate photosensitivity; IR
laser platemaking presensitized lithog master
- IT Onium compounds
RL: CAT (Catalyst use); TEM (Technical or engineered material use);
USES (Uses)
(photopolymn. initiators; presensitized lithog
master plates contg. silane-based electron donors for heat-mode
laser platemaking)
- IT Polymerization catalysts
(photopolymn., onium salts; presensitized lithog.
master plates contg. silane-based electron donors for heat-mode
laser platemaking)
- IT Photoimaging materials
(photopolymn.; presensitized lithog. master plates
contg. silane-based electron donors for heat-mode laser
platemaking)
- IT Lithographic plates
(presensitized, masters; presensitized lithog. master
plates contg. silane-based electron donors for heat-mode laser
platemaking)
- IT 17631-81-1 97889-68-4 106568-07-4 106568-09-6
140143-58-4 172532-13-7 174363-48-5 432024-05-0
432024-07-2
RL: CAT (Catalyst use); TEM (Technical or engineered material use);
USES (Uses)
(photopolymn. accelerators; presensitized lithog.
master plates contg. silane-based electron donors for heat-mode
laser platemaking)
- IT 19600-49-8 25183-63-5 57835-99-1, Triphenylsulfonium
hexafluorophosphate 66003-78-9, Triphenylsulfonium
trifluoromethanesulfonate
RL: CAT (Catalyst use); TEM (Technical or engineered material use);
USES (Uses)
(photopolymn. initiators; presensitized lithog
master plates contg. silane-based electron donors for heat-mode
laser platemaking)
- IT 134127-48-3 173783-73-8 244606-76-6
RL: TEM (Technical or engineered material use); USES (Uses)
(photothermal converters; presensitized lithog. master

plates contg. silane-based electron donors for heat-mode laser
platemaking)

IT 57592-66-2P, Pentaerythritol tetraacrylate homopolymer
139385-71-0P, Glycerin dimethacrylate-hexamethylene diisocyanate
copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)

(presensitized lithog. master plates contg.

silane-based electron donors for heat-mode laser platemaking)

L27 ANSWER 31 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:129273 HCAPLUS

DOCUMENT NUMBER: 136:185460

TITLE: Fluoroorganopolysiloxane-based film-forming
compositions

INVENTOR(S): Matsumura, Kazuyuki; Yamatani, Masaaki; Asai,
Mitsuo; Sato, Kazuharu

PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002053805	A2	20020219	JP 2000-237490	200008 04

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PRIORITY APPLN. INFO.: JP 2000-237490

200008
04

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AB Title compns., with good adhesion, antireflection, transparency, and
weather resistance, contain title polysiloxanes prepd. by hydrolytic
polycondensation of 100 parts blends of $Rf(CH_2)_aX(CH_2)_bSiR_1c(OR_2)_3-c$
{ $Rf = C_nF_{2n+1}$ or $CF_3CF_2CF_2O[C(CF_3)FCF_2]_mC(CF_3)F$ with $m \geq 1$ and
 $n = 1-20$; $R_1, R_2 = C_1-4$ alkyl; $X = CH_2, CH_2O, NR_3, COO, CONR_3, S,$
 $SO_2, SO_2NR_3, R_3 = H$ or C_1-8 alkyl; $a = 0-3$; $b = 1-3$; $c = 0-1$ } and
 $R_4dSi(OR_5)_4-d$ ($R_4 = C_1-10$ alkyl; $R_5 = C_1-10$ alkyl, alkenyl, aryl,
alkoxyalkyl, acyl; $d = 0-3$) in the presence of 200-2,000 parts water
or in fluoro solvents. A polycarbonate plate was coated with a
compn. contg. γ -acryloxypropyltrimethoxysilane-
 $C_8F_{17}(CH_2)_2Si(OMe)_3$ hydrolyzate 100, an initiator 5, and
trimethylolpropane triacrylate 10 parts and UV-cured to form a film
with pencil hardness H, water repellency 103°, refractive
index 1.38, reflection degree 2.0%, and good adhesion, transparency,
and soil, scratch, and weather resistance.

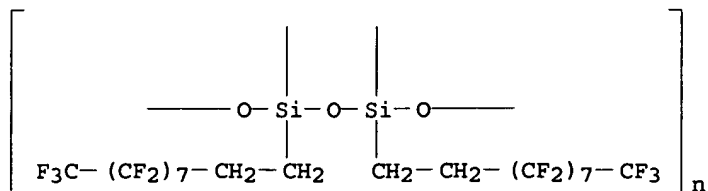
IT 161045-59-6P 162023-57-6P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM
(Technical or engineered material use); PREP (Preparation); USES
(Uses)

(fluoropolysiloxane hard coatings with plastic adhesion and soil
and water and weather resistance for antireflective articles)

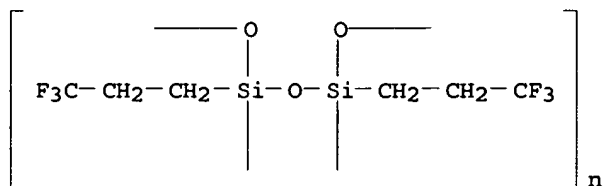
RN 161045-59-6 HCAPLUS

CN Poly[[1,3-bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-
heptafluorodecyl)-1,3:1,3-disiloxanediylidene]-1,3-bis(oxy)]
(9CI) (CA INDEX NAME)



RN 162023-57-6 HCAPLUS

CN Poly[[1,3-bis(3,3,3-trifluoropropyl)-1,3:1,3-disiloxanediylidene]-1,3-bis(oxy)] (9CI) (CA INDEX NAME)



IC ICM C09D183-08

ICS C08G077-24; C08G077-26; C08G077-28; C08G077-46; C09D005-00; C09D005-16

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 73

IT 1760-24-3DP, N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane, reaction product with epoxyalkoxysilane, polymers with alkoxysilyl-contg. acrylic resins 2897-60-1DP, γ -Glycidoxypopyltrimethoxysilane, reaction product with aminoalkoxysilane, polymers with alkoxysilyl-contg. acrylic resins 157287-40-6P, Trimethoxy(3,3,3-Trifluoropropyl)silane homopolymer 159412-13-2P, 2-Perfluorooctylethyltrimethoxysilane homopolymer 161045-59-6P 162023-57-6P 395084-01-2P, 2-Perfluorooctylethyltrimethoxysilane-trimethoxy(3,3,3-trifluoropropyl)silane-tetraethoxysilane copolymer 399039-03-3P, 2-Perfluorooctylethyltrimethoxysilane-trimethoxy(3,3,3-trifluoropropyl)silane-methyltrimethoxysilane copolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(fluoropolysiloxane hard coatings with plastic adhesion and soil and water and weather resistance for antireflective articles)

L27 ANSWER 32 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:661915 HCAPLUS

DOCUMENT NUMBER: 135:372107

TITLE: Synthesis of hybrid nanoparticles and morphological characterization of composite ultrathin films

AUTHOR(S): Pyun, Jeffrey; Matyjaszewski, Krzysztof; Kowalewski, Tomasz

CORPORATE SOURCE: Center for Macromolecular Engineering, Department of Chemistry, Carnegie Mellon University, Pittsburgh, PA, 15213, USA

SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2001), 42(2), 33-34

CODEN: ACPPAY; ISSN: 0032-3934

PUBLISHER: American Chemical Society, Division of Polymer Chemistry

DOCUMENT TYPE: Journal; (computer optical disk)

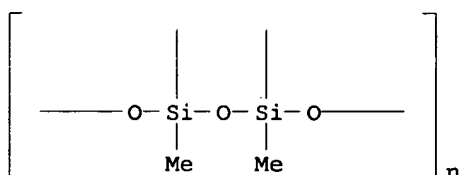
LANGUAGE: English

AB Hybrid nanoparticles were prepd. using controlled radical polymn. and the morphol. of the materials was studied. Polysilsesquioxane and silica colloids were prepd. via microemulsion and Stober processes, resp., and used as colloidal initiators in atom transfer radical polymn. (ATRP) of benzyl acrylate and styrene to synthesize the hybrid nanoparticles. Ultrathin films of bare polysilsesquioxane colloids and hybrid nanoparticles were cast onto mica and studied by tapping-mode at. force microscopy (AFM). By the use of ATRP, nanocomposite films possessing well-defined polymers of varying functionality and flexibility were prepd.

IT 153315-80-1D, Methyltrimethoxysilane homopolymer, ladder SRU, bromoisobutyrate group-contg. derivs.
 RL: CAT (Catalyst use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses) (initiator and composite component; prepn. and morphol. of hybrid nanoparticles from polysilsesquioxane and silica colloids as ATRP initiator-components for vinyl and acrylic copolymers)

RN 153315-80-1 HCAPLUS

CN Poly[(1,3-dimethyl-1,3:1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI) (CA INDEX NAME)



CC 35-7 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 37, 57

IT 25498-03-7D, Methyltrimethoxysilane homopolymer, bromoisobutyrate group-contg. derivs. 153315-80-1D, Methyltrimethoxysilane homopolymer, ladder SRU, bromoisobutyrate group-contg. derivs.
 RL: CAT (Catalyst use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses) (initiator and composite component; prepn. and morphol. of hybrid nanoparticles from polysilsesquioxane and silica colloids as ATRP initiator-components for vinyl and acrylic copolymers)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 33 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:627680 HCAPLUS

DOCUMENT NUMBER: 135:344863

TITLE: Synthesis of Well-Defined Block Copolymers Tethered to Polysilsesquioxane Nanoparticles and Their Nanoscale Morphology on Surfaces

AUTHOR(S): Pyun, Jeffrey; Matyjaszewski, Krzysztof; Kowalewski, Tomasz; Savin, Daniel; Patterson, Gary; Kickelbick, Guido; Huesing, Nicola

CORPORATE SOURCE: Department of Chemistry, Carnegie Mellon University, Pittsburgh, PA, 15213, USA

SOURCE: Journal of the American Chemical Society (2001), 123(38), 9445-9446
 CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

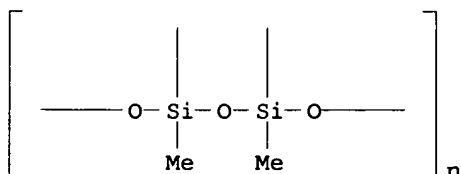
DOCUMENT TYPE: Journal

LANGUAGE: English

AB 2-Bromoisobutyrate-functionalized polysilsesquioxane colloidal

initiators were prepd. and used in atom transfer radical polymn. for the prepn. of hybrid nanoparticles possessing well-defined tethered homopolymers of polystyrene and benzyl acrylate-styrene block copolymer. At. force microscopy studies of these materials revealed the direct impact of the tethered copolymer compn. on the nanoscale morphol. of hybrid nanoparticle (sub)monolayer films.

IT 153315-80-1DP, Methyltrimethoxysilane homopolymer, ladder sru, bromoisobutyrate group-contg. derivs.
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. as initiators for prepn. of hybrid nanoparticles having tethered benzyl acrylate-styrene block copolymer)
 RN 153315-80-1 HCAPLUS
 CN Poly[(1,3-dimethyl-1,3:1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI)
 (CA INDEX NAME)



CC 35-7 (Chemistry of Synthetic High Polymers)
 IT 25498-03-7DP, Methyltrimethoxysilane homopolymer, bromoisobutyrate group-contg. derivs. 153315-80-1DP, Methyltrimethoxysilane homopolymer, ladder sru, bromoisobutyrate group-contg. derivs.
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. as initiators for prepn. of hybrid nanoparticles having tethered benzyl acrylate-styrene block copolymer)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 34 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:451130 HCAPLUS
 DOCUMENT NUMBER: 135:62082
 TITLE: Curable liquid resin compositions and their use as protective films on color filters of liquid-crystal display devices
 INVENTOR(S): Nakata, Kunihiko; Yoshioka, Masahiro; Nomura, Akiko
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001166128	A2	20010622	JP 2000-286883	20000921

PRIORITY APPLN. INFO.: JP 1999-278882 A 19990930

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OTHER SOURCE(S): MARPAT 135:62082

AB The compns. giving cured films with good flatness, freedom from optical anisotropic flaws and high refractive index and push-in hardness, contain oxetane compds., epoxy compds. bearing planar pendant groups, cationic polymn. initiators and ultrafine fillers. Thus, mixing a vinyltrimethoxysilane hydrolytic condensate 28 with Al trisacetylacetonate 46, bisphenoxyethanolfluorene diglycidyl ether 30.2, cyclohexanedicarboxylic acid bisoxetane 6.7, propylene glycol monomethyl ether acetate 70.0 and acetylacetone 1.38 parts, filtering, spin coating on a glass surface and heating at 150° for 10 min and at 230° for 30 min gave a transparent film with freedom from roughness and pinholes.

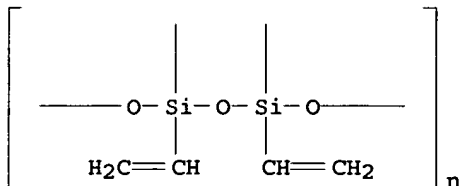
IT 156430-49-8, Vinyltrimethoxysilane polymer ladder sru

RL: CAT (Catalyst use); USES (Uses)

(cationic polymn. catalysts with metal chelates; curable liq. resin compns. and use as protective films on color filters of liq.-crystal display devices)

RN 156430-49-8 HCAPLUS

CN Poly[(1,3-diethenyl-1,3:1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI)
(CA INDEX NAME)



IC ICM G02B005-20

ICS C08G059-20; C08G059-62; C08G059-68; C08G065-26; C08K003-20;
C08L063-02; C08L071-00; G03F007-004; G03F007-029; G03F007-075;
G02F001-1335

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 42, 74, 76

IT 29382-69-2, Vinyltrimethoxysilane homopolymer 156430-49-8,

Vinyltrimethoxysilane polymer ladder sru 158600-68-1

RL: CAT (Catalyst use); USES (Uses)

(cationic polymn. catalysts with metal chelates; curable liq. resin compns. and use as protective films on color filters of liq.-crystal display devices)

L27 ANSWER 35 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:451129 HCAPLUS

DOCUMENT NUMBER: 135:62081

TITLE: Curable liquid resin compositions and their use
as protective films on color filters of
liquid-crystal display devices

INVENTOR(S): Nakata, Kunihiro; Yoshioka, Masahiro; Nomura,
Akiko

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001166127	A2	20010622	JP 2000-266881	

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04

PRIORITY APPLN. INFO.:

JP 1999-278884

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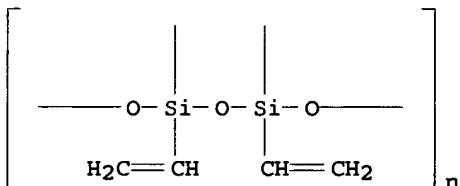
199909
30

AB The compns. giving cured films with good flatness, freedom from optical anisotropic defect and high refractive index and push-in hardness, contain alicyclic epoxy compds., epoxy compds. bearing planar groups, cationic polymn. initiators, polyol compds. and organoalkoxysilanes. Thus, mixing a vinyltrimethoxysilane hydrolytic condensate 9.3 with Celloxide 2021P (alicyclic epoxy resin) 12.25, bisphenoxyethanolfluorene diglycidyl ether 15, ethylene glycol 3, EHPE 3150 (alicyclic epoxy resin) 4.2, propylene glycol monomethyl ether acetate 48, Al trisacetylacetone 0.18 and acetylacetone 0.54 parts, filtering, spin coating on a glass surface and heating at 150° for 10 min and at 230° for 30 min gave a transparent film with freedom from roughness and pinholes.

IT 156430-49-8, Vinyltrimethoxysilane polymer ladder stru
RL: CAT (Catalyst use); MOA (Modifier or additive use); USES (Uses)
(curable liq. resin compns. and use as protective films on color filters of liq.-crystal display devices)

RN 156430-49-8 HCAPLUS

CN Poly[(1,3-diethenyl-1,3:1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI)
(CA INDEX NAME)



IC ICM G02B005-20
ICS C08G059-22; C08G059-62; C08K003-22; C08K005-057; C08K005-5415;
C08L063-00; G02F001-1335; G03F007-004; G03F007-029; G03F007-075

CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 42, 74, 76

IT 29382-69-2, Vinyltrimethoxysilane polymer 156430-49-8,
Vinyltrimethoxysilane polymer ladder stru 158600-68-1
RL: CAT (Catalyst use); MOA (Modifier or additive use); USES (Uses)
(curable liq. resin compns. and use as protective films on color filters of liq.-crystal display devices)

L27 ANSWER 36 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:436107 HCAPLUS

DOCUMENT NUMBER: 135:167129

TITLE: Photocrosslinkable star polymers: precursors for model polyelectrolyte networks

AUTHOR(S): Mengel, Christoph; Meyer, Wolfgang H.; Wegner, Gerhard

CORPORATE SOURCE: Max-Planck-Institut fur Polymerforschung, Mainz, D-55128, Germany

SOURCE: Macromolecular Chemistry and Physics (2001), 202(7), 1138-1149

CODEN: MCHPES; ISSN: 1022-1352

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

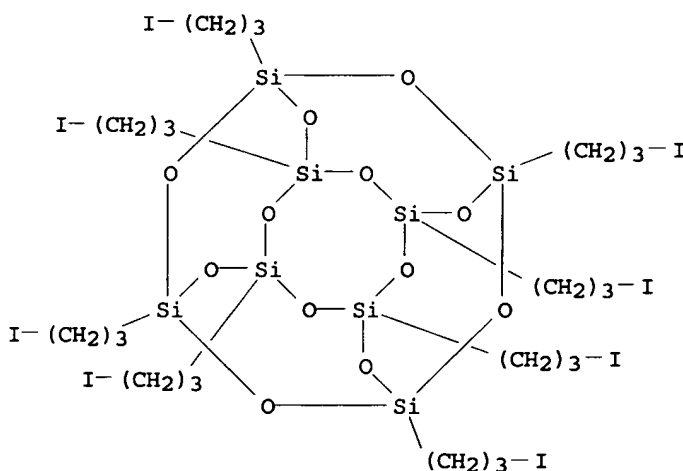
LANGUAGE: English

AB A new synthetic route for the prepn. of well-defined model polyelectrolyte networks based on the photodimerization of

monodisperse star polymers, bearing terminal anthryl groups, is presented. Poly(*tert*-Bu methacrylate) (PtBMA) star precursor polymers were prepd. via living anionic polymn. 1²-(2-Anthryl)-1-phenylhexyllithium (APH-Li) served as the novel initiator by which photo-dimerizable anthryl groups were introduced. In order to vary the functionality of the stars, two different terminating agents were used: 1,3,5-trisbromomethylbenzene (TBMB) and octa[(3-iodopropyl)-silsesquioxane] (T8-(prop-I)8). The length of the resp. star arms was varied accordingly:

14 ≤ P_n ≤ 195. Subsequent cleavage of the *tert*-Bu ester moieties by acidic hydrolysis gave access to photocrosslinkable, monodisperse polyelectrolyte star polymers. Fluorescence expts. indicated on aggregation of low mol. wt. poly(methacrylic acid) (PMAA) stars in salt contg. solns. Upon irradiation with UV light (λ = 366 nm) photodimerization of the terminal anthryl groups was induced and thus formation of a well-defined polyelectrolyte network was accomplished. In model expts. we demonstrated by ¹H-NMR, UV-VIS spectroscopy and GPC anal., that linear ω-anthryl-functionalized precursor PtBMA polymers dimerize quant., as long as a crit. d.p. (P_n ≈ 100) is not exceeded.

- IT 161678-43-9P, Octakis(3-iodopropyl)pentacyclooctasiloxane
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (core for star-branched poly(*tert*-Bu methacrylate); prepn. of photocrosslinkable star polymers as precursors for model polyelectrolyte networks)
- RN 161678-43-9 HCAPLUS
- CN Pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxane, octakis(3-iodopropyl)- (9CI) (CA INDEX NAME)



- CC 35-8 (Chemistry of Synthetic High Polymers)
- IT 161678-43-9P, Octakis(3-iodopropyl)pentacyclooctasiloxane
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (core for star-branched poly(*tert*-Bu methacrylate); prepn. of photocrosslinkable star polymers as precursors for model polyelectrolyte networks)
- IT 39799-28-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (reactant for initiator; in prepn. of photocrosslinkable star polymers as precursors for model polyelectrolyte networks)

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L27 ANSWER 37 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:254912 HCAPLUS
 DOCUMENT NUMBER: 134:282221
 TITLE: Protective transparent thermosetting coating compositions for use on color filters of LCD devices
 INVENTOR(S): Nakata, Kunihiro; Yoshioka, Masahiro; Nomura, Akiko
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001098048	A2	20010410	JP 1999-278883	19990930

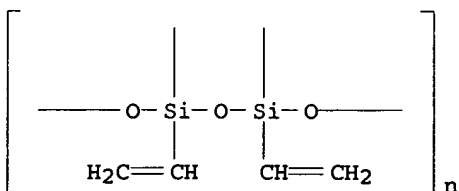
PRIORITY APPLN. INFO.: JP 1999-278883 19990930

AB The compns. giving coat films with good planarization and reduced gap unevenness, comprise oxetane compds. and cationic thermal polymn. initiators contg. organosilane-type compds. and metal chelators. Thus, heating a soln. of vinyltrimethoxysilane 562.07, propylene glycol monomethyl ether acetate 700, water 204.89, and oxalic acid 0.05 g at 120° for 2 h while removing water and MeOH, distg. off the remaining water and MeOH, mixing the resulting hydrolyzate (solid content 30%) 9.6 with Al trisacetylacetone 0.32, cyclohexanedicarboxylic acid bisoxetane (Sic) 22.4 and propylene glycol monomethyl ether acetate 48 g gave a coating compn. with good storage stability.

IT 156430-49-8, Vinylsilanetriol homopolymer, ladder stru
 RL: CAT (Catalyst use); POF (Polymer in formulation); USES (Uses)
 (cationic thermal polymn. initiator; protective transparent thermosetting coating compns. for use on color filters of LCD devices)

RN 156430-49-8 HCAPLUS

CN Poly[(1,3-diethenyl-1,3:1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI)
 (CA INDEX NAME)



IC ICM C08G059-40
 ICS C08G065-18; G02B005-20; C09D163-00; C09D201-00
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 74, 76
 IT 13963-57-0, Aluminum trisacetylacetone 29382-69-2,
 Vinyltrimethoxysilane polymer 156430-49-8,

Vinylsilanetriol homopolymer, ladder sru
 RL: CAT (Catalyst use); POF (Polymer in formulation); USES (Uses)
 (cationic thermal polymn. initiator; protective
 transparent thermosetting coating compns. for use on color
 filters of LCD devices)

L27 ANSWER 38 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:783272 HCAPLUS
 DOCUMENT NUMBER: 132:28741
 TITLE: Pigmented resin compositions for forming
 patterns by **photolithography** and color
 filters thereof
 INVENTOR(S): Hagiwara, Hidesato; Ito, Hiromitsu
 PATENT ASSIGNEE(S): Toppan Printing Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

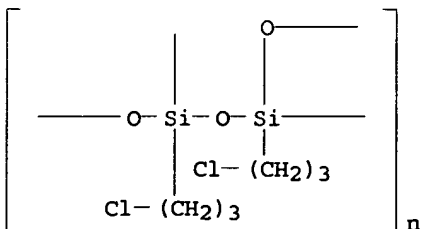
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11337721	A2	19991210	JP 1998-146255	199805 27
PRIORITY APPLN. INFO.: JP 1998-146255				199805 27

AB The compns. contain polymers having alkyl main chains and siloxane branches, compds. which generate reaction accelerators by light, and colorants. The polymers may be sol. in alkalis. The accelerator-generating compds. may be photoacid or photobase generators. The colorants may involve dyes or mixts. of dyes and pigments. The color filters have relief patterns of the compns. The color filters show excellent durability.

IT **194555-87-8DP**, γ -Chloropropyltrimethoxysilane polymer ladder sru, reaction products with poly(p-hydroxystyrene)
 RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
 (pigmented siloxane-branched alkyl polymer compns. for forming patterns by **photolithog.** for color filters)

RN 194555-87-8 HCAPLUS

CN Poly[[1,3-bis(3-chloropropyl)-1,3:1,3-disiloxanediylidene]-1,3-bis(oxy)] (9CI) (CA INDEX NAME)



IC ICM G02B005-20
 ICS C08L083-04; G03F007-004; G03F007-075
 CC 74-13 (Radiation Chemistry, **Photochemistry**, and
 Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38

- ST pigmented resin compn **photolithog** color filter; LCD color filter pigmented resin compn; siloxane branched alkyl polymer color filter; photoacid generator **photolithog** color filter; photobase generator **photolithog** color filter
- IT Liquid crystal displays
Optical filters
(pigmented siloxane-branched alkyl polymer compns. for forming patterns by **photolithog.** for color filters)
- IT 2530-87-2DP, γ -Chloropropyltrimethoxysilane, reaction products with poly(p-hydroxystyrene) 24979-70-2DP, Poly(p-hydroxystyrene), reaction products with γ -chloropropyltrimethoxysilane
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(crosslinked; pigmented siloxane-branched alkyl polymer compns. for forming patterns by **photolithog.** for color filters)
- IT 6542-67-2, 2,4,6-Tris(trichloromethyl)-s-triazine
RL: CAT (Catalyst use); USES (Uses)
(initiator; pigmented siloxane-branched alkyl polymer compns. for forming patterns by **photolithog.** for color filters)
- IT 163219-73-6DP, γ -Chloropropyltrimethoxysilane homopolymer, reaction products with poly(p-hydroxystyrene) 194555-87-8DP, γ -Chloropropyltrimethoxysilane polymer ladder sru, reaction products with poly(p-hydroxystyrene)
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(pigmented siloxane-branched alkyl polymer compns. for forming patterns by **photolithog.** for color filters)
- IT 61725-85-7, Oleosol Fast Red BL 173833-30-2, Oil Blue BO 185766-36-3, Orient Oil Green 502
RL: MOA (Modifier or additive use); USES (Uses)
(pigmented siloxane-branched alkyl polymer compns. for forming patterns by **photolithog.** for color filters)

L27 ANSWER 39 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:780676 HCAPLUS

DOCUMENT NUMBER: 132:108370

TITLE: Synthesis of hybrid polymers Using atom transfer radical polymerization: Homopolymers and Block Copolymers from polyhedral oligomeric silsesquioxane monomers

AUTHOR(S): Pyun, Jeffrey; Matyjaszewski, Krzysztof

CORPORATE SOURCE: Center for Macromolecular Engineering Department of Chemistry, Carnegie Mellon University, Pittsburgh, PA, 15213, USA

SOURCE: Macromolecules (2000), 33(1), 217-220

CODEN: MAMOBX; ISSN: 0024-9297

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Homopolymers, triblock copolymers (Bu acrylate comonomer), and star-block copolymers (Me acrylate comonomer) of 3-(3,5,7,9,11,13,15-heptacyclopentyl-pentacyclo[9.5.1.1.3,91.5,1517,13]octasiloxane-1-yl)propyl methacrylate (MA-POSS) have been prepd.

CC 35-4 (Chemistry of Synthetic High Polymers)

IT 248603-10-3, 1,1,1-Tris(4-(2-bromoisobutyryloxy)phenyl)ethane

RL: CAT (Catalyst use); USES (Uses)

(initiator; synthesis of hybrid polymers using atom transfer radical polymn. of polyhedral oligomeric silsesquioxane monomers)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 40 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:699251 HCAPLUS

DOCUMENT NUMBER: 131:323937
 TITLE: Active energy radiation-curable polysiloxane coating compositions, their coated plastic moldings, and their manufacture
 INVENTOR(S): Tanaka, Toshiya; Takehara, Akiko; Saegusa, Hiroyuki; Nakamura, Toru
 PATENT ASSIGNEE(S): Nikon Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11302598	A2	19991102	JP 1998-113905	19980423

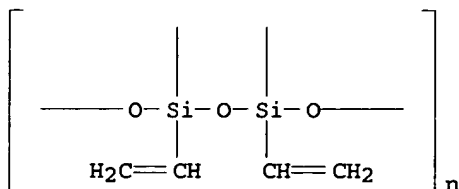
PRIORITY APPLN. INFO.: JP 1998-113905 19980423

AB The compn. comprises (a) an organosilicon compd. $R_1aR_2bSi(OR_3)_4-(a+b)$ (R_1 = vinyloxy-contg. C4-14 org. group; R_2 = C1-6 hydrocarbyl or halogenated hydrocarbyl; R_3 = C1-4 alkyl, alkoxyalkyl, acyl; $a = 1-3$; $b = 0-2$; and $a + b = 1-3$) or its hydrolyzate, and (b) an polymn. initiator releasing an acid by irradiation with active energy. Thus, a compn. contg. vinyloxytrimethoxysilane 120, and Adeka Optomer SP 170 1 part was spin-coated on a CR 39 (polycarbonate) plate and irradiated with UV to give a test piece with good adhesion and scratch resistance.

IT 156430-49-8, Vinyltrimethoxysilane polymer ladder structure
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (active energy radiation-curable polysiloxane coating compns., their coated plastic moldings, and their manuf.)

RN 156430-49-8 HCAPLUS

CN Poly[(1,3-diethenyl-1,3,1,3-disiloxanediyldiene)-1,3-bis(oxy)] (9CI)
 (CA INDEX NAME)



IC ICM C09D183-07
 ICS B05D007-24; C08J007-06; C09D005-00; C08J007-04
 CC 42-10 (Coatings, Inks, and Related Products)
 IT 29382-69-2, Vinyltrimethoxysilane polymer 29434-25-1,
 Vinyltriethoxysilane polymer 156430-49-8,
 Vinyltrimethoxysilane polymer ladder structure
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (active energy radiation-curable polysiloxane coating compns., their coated plastic moldings, and their manuf.)

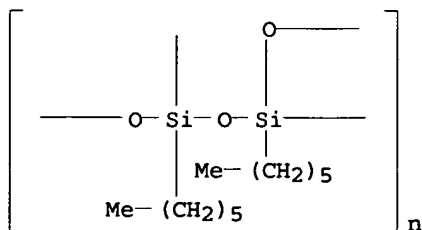
L27 ANSWER 41 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:650464 HCAPLUS
 DOCUMENT NUMBER: 131:273237
 TITLE: Storage-stable curable water emulsions for
 coatings with good stain and water resistance
 INVENTOR(S): Ohmura, Takuya; Inukai, Hiroshi; Hasegawa,
 Mitsutaka; Tsuda, Takashi; Yamamura, Takehisa
 PATENT ASSIGNEE(S): Toa Gosei Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11279364	A2	19991012	JP 1998-195023	199806 25

PRIORITY APPLN. INFO.: JP 1998-30610 A
 199801
 28

AB Title emulsions coatings, particularly useful for building materials
 such as concretes, comprises (A) an alkoxysilyl-contg. (meth)acrylic
 copolymer (e.g., Aqualon HS 20-Bu acrylate-2-hydroxyethyl
 methacrylate-Me methacrylate- γ -methacryloxypropyltriethoxysila
 ne copolymer) (B) a hydrolyzable silane compd. (e.g.,
 hexyltriethoxysilane), and (C) a block copolymer dispersants prepd.
 by radical polymn. of polyoxyalkylene (meth)acrylate-based monomers
 in the presence of radical polymn. initiators having
 polydimethylsiloxane and azo groups in the main chains (M 230G-VPS
 0501 block copolymer).
 IT 157445-38-0P, Hexyltriethoxysilane polymer, ladder sru
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (curable acrylic polysiloxanes emulsion coatings with good stain
 and water resistance and storage stability)
 RN 157445-38-0 HCAPLUS
 CN Poly[(1,3-dihexyl-1,3,1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI)
 (CA INDEX NAME)



IC ICM C08L033-04
 ICS C09D005-00; C09D133-04; C08F004-04; C08F299-02; C08L055-00
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 58
 IT 156309-06-7P, Ethylene oxide-VPS 0501 block copolymer
 157445-38-0P, Hexyltriethoxysilane polymer, ladder sru
 158808-35-6P, Hexyltriethoxysilane homopolymer 158947-07-0P, VPS
 0501 236735-86-7P 236735-88-9P 242816-03-1P, NK Ester AM
 90G-2-hydroxyethyl acrylate-VPS 0501 block copolymer 243659-21-4P,
 M 230G- γ -Methacryloxypropyltriethoxysilane-VPS 1001 block

copolymer 302352-95-0P, M 230G-VPS 0501 block copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (curable acrylic polysiloxanes emulsion coatings with good stain
 and water resistance and storage stability)

L27 ANSWER 42 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:559629 HCAPLUS

DOCUMENT NUMBER: 131:258039

TITLE: The use of polymers in heterophase
 polymerizations

AUTHOR(S): Tauer, Klaus; Muller, Harmin; Rosengarten, Lutz;
 Riedelsberger, Kerstin

CORPORATE SOURCE: Max-Planck-Institute for Colloid and Interface
 Research, Teltow, D-41538, Germany

SOURCE: Colloids and Surfaces, A: Physicochemical and
 Engineering Aspects (1999), 153(1-3),
 75-88

CODEN: CPEAEH; ISSN: 0927-7757

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Polymers can play an important role in heterophase polymns. either
 as **initiators**, or as stabilizers, or as dispersion media.
 The use of polymeric radicals derived from poly(ethylene glycol)
 (PEG) to start the polymn. as well as to stabilize the particles
 leads to the formation of block copolymer particles. The block
 copolymer architecture depends on the no. of radicals per PEG chain
 as well as on the termination mode of the growing polymer chain.
 PEG azo **initiators** resulting in one radical per PEG chain
 and styrene as monomer lead to PEG-polystyrene-PEG triblock
 copolymers whereas Me methacrylate and PEG chains with a radical on
 both ends lead to poly(Me methacrylate)-PEG-poly(Me methacrylate)
 triblock copolymers. In both cases the particle morphol. deviates
 from the ordinary solid sphere morphol. Block copolymers with one
 poly(styrene sulfonate) block are effective stabilizers and lead to
 different particle decorations depending on the length as well as on
 the degree of sulfonation of the polyelectrolyte block. Fully
 sulfonated poly(styrene sulfonate) blocks with a contour length of
 113 nm lead to electrosterically stabilized particles with a
 polyelectrolyte brush corona thickness of approx. 60 nm ('porcupine'
 particles). The same poly(styrene sulfonate) block with a degree of
 sulfonation of approx. 50% results in 'ringlet' particles due to the
 formation of loops and multiple adsorption points. The 'porcupine'
 particles **posses** an extraordinary salt stability assocd.
 with the entropic elasticity of the polyelectrolyte chain. The use
 of a homologous series of PEG as a dispersion medium and PEGA
initiators leads to polymer in polymer dispersions where the
 mol. wt. ratio of the free PEG chains and the confined PEG chains
 dets. the particle properties. The av. particle size is smaller and
 the polydispersity of the particle size distribution is larger, the
 higher the mol. wt. of the mols. in the dispersion medium compared
 to the confined PEG chains stabilizing the particles. This is a new
 way to control particle as well as polymer properties in heterophase
 polymns.

CC 35-8 (Chemistry of Synthetic High Polymers)

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L27 ANSWER 43 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:558896 HCAPLUS

DOCUMENT NUMBER: 132:166622

TITLE: Synthesis of organic/inorganic hybrid materials
 from polysiloxane precursors using atom transfer
 radical polymerization

AUTHOR(S): Pyun, Jeffrey; Miller, Peter J.; Kickelbick, Guido; Matyjaszewski, Krzysztof; Schwab, Joseph; Lichtenhan, Joseph
 CORPORATE SOURCE: Center for Macromolecular Engineering, Dept. of Chemistry, Carnegie Mellon University, Pittsburgh, PA, 15213, USA
 SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1999), 40(2), 454-455
 CODEN: ACPPAY; ISSN: 0032-3934
 PUBLISHER: American Chemical Society, Division of Polymer Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The synthesis of org./inorg. hybrid materials from polyhedral oligomeric silsesquioxanes (POSS) using atom transfer radical polymn. (ATRP) was carried out. From POSS monomers contg. either methacryloyl, or styryl groups, well-defined polymers of various compns. and topologies were prep'd. The compn. of these materials was controlled and well-defined homopolymers, random and block copolymers of POSS-contg. monomers were synthesized. The use of macroinitiators of various topologies allowed for the synthesis of ABA-triblock and star-block copolymers, using ATRP.
 CC 35-4 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 37, 57
 REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 44 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:518621 HCAPLUS

DOCUMENT NUMBER: 131:158928

TITLE: Articles covered with wear-, scratch-, heat-, chemical-, and weather-resistant coatings having compositional gradients and their manufacture
 INVENTOR(S): Fukushima, Hiroshi; Tamura, Misao; Yano, Kazuhisa; Okamoto, Kazuo; Fukushima, Yoshiaki; Tani, Masaaki; Kito, Osamu; Nagai, Takayuki; Mizutani, Katsuya

PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan; Toyota Central Research and Development Laboratories, Inc.; Toyoda Tsusho K. K.; Toyota Motor Corp.

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11221880	A2	19990817	JP 1998-307140	19981028
			<--	
JP 3502279	B2	20040302		
PRIORITY APPLN. INFO.:			JP 1997-295613	A 19971028
			<--	

AB The title coatings with good durability and adhesion onto substrate, are formed from compns. contg. (A) 5-95 parts laminar hybrid substances with covalent bonds between org. layers formed by hydrolytic condensation of organoalkoxysilanes and inorg. crystals

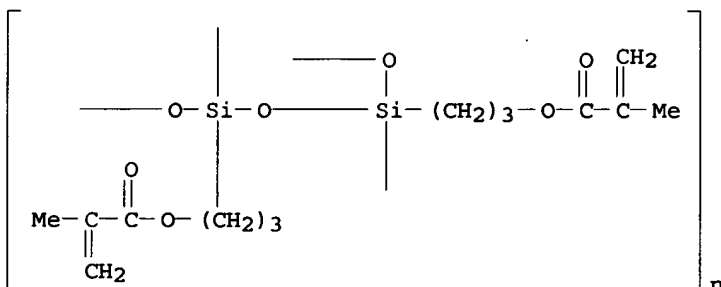
having center metals selected from Mg, Al, Ni, Co, Cu, Mn, Fe, Li, V, Zr, Ca, Y, Ga, In, Tl, Sb, Rh, Ru, Pd, Sn, Zn, Pb, and Ce and (B) 5-95 parts (meth)acryloyloxy group-contg. compds. The coatings have continuous or laminar gradient compositional ratio of (A) and (B) from the substrate sides to the atm. sides. The coatings are manufd. by coating substrates with compns. contg. (A), (B), and (C) 0.1-10 parts active energy ray-sensitive radical polymn. initiators, heating the coatings to form compositional gradients of (A) and (B), and irradiating the coatings with energy ray. Thus, 49.6 parts 3-methacryloyloxypropyltrimethoxysilane and 2.03 parts MgCl₂·6H₂O were mixed at alk. pH to obtain a hybrid polymer, 45 parts of which was mixed with urethane diacrylate (manufd. from IPDI and 2-hydroxypropyl acrylate) 15, 1,6-hexanediol diacrylate 55, Irgacure 184 (1-hydroxycyclohexyl Ph ketone) 3, Tinuvin P (UV absorber) 8, and solvent 190 parts to obtain a compn. The compn. was applied on Lexan LS 2 (polycarbonate plate) and irradiated with a high-pressure Hg lamp to give a coating showing haze 11.9 after 500 cycle in Taber wear test, good adhesion, and good resistance to hot water, chems. (Me₂CO, PhMe, NaOH, H₂SO₄), and weather.

IT 159338-14-4DP, 3-Methacryloyloxypropyltrimethoxysilane homopolymer, ladder, sru, reaction products with magnesium chloride
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(articles covered with wear-, scratch-, heat-, chem.-, and weather-resistant coatings having compositional gradients of inorg.-org. hybrid Si polymers and acrylic resins)

RN 159338-14-4 HCAPLUS

CN Poly[[1,3-bis[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]-1,3:1,3-disiloxanediylidene]-1,3-bis(oxy)] (9CI) (CA INDEX NAME)



IC ICM B32B027-00

ICS B05D005-00; B05D007-24; C08F002-48; C08F283-12; C09D004-00

CC 42-10 (Coatings, Inks, and Related Products)

IT 7786-30-3DP, Magnesium chloride, reaction products with 3-methacryloyloxypropyltrimethoxysilane homopolymer 52004-97-4DP, 3-Methacryloyloxypropyltrimethoxysilane homopolymer, reaction products with magnesium chloride 159338-14-4DP, 3-Methacryloyloxypropyltrimethoxysilane homopolymer, ladder, sru, reaction products with magnesium chloride
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(articles covered with wear-, scratch-, heat-, chem.-, and weather-resistant coatings having compositional gradients of inorg.-org. hybrid Si polymers and acrylic resins)

L27 ANSWER 45 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:48269 HCAPLUS

DOCUMENT NUMBER: 130:126384

TITLE: Antisoiling metal panel
 INVENTOR(S): Koura, Setsuko; Sakato, Kenji
 PATENT ASSIGNEE(S): Nisshin Steel Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11010782	A2	19990119	JP 1997-169735	19970626
JP 3384949	B2	20030310	JP 1997-169735	19970626

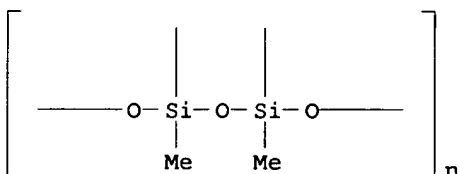
PRIORITY APPLN. INFO.: <--

AB The building panel is prepd. by coating an org. and/or a silica primer on a metal panel then with a silica topcoat contg. a **photoinitiator** and/or an inorg. pigment. Thus, powder coating an epoxy resin on a galvanized iron steel plate then with a topcoat of methyltrimethoxysilicate in Bu cellosolve and iso-PROH mixt. contg. TiO₂ gave a sample having gloss 3-8 at an angle of 65°.

IT 153315-80-1, Methyltrimethoxysilane homopolymer, sru
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (antisoiling metal panel)

RN 153315-80-1 HCAPLUS

CN Poly[(1,3-dimethyl-1,3:1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI)
 (CA INDEX NAME)



IC ICM B32B009-00
 ICS B05D005-00; B05D007-14; B05D007-24

CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 45, 58

IT 25498-03-7, Methyltrimethoxysilane homopolymer 153315-80-1
 , Methyltrimethoxysilane homopolymer, sru
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (antisoiling metal panel)

L27 ANSWER 46 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:34685 HCAPLUS

DOCUMENT NUMBER: 130:140578

TITLE: UV-curable acrylic polyurethane coating compositions and single-core optical fibers therewith

INVENTOR(S): Yamazaki, Hisaya; Nishimura, Mitsuhiro; Uemura, Takashi; Yamamoto, Akira; Asano, Masatoshi; Yamaguchi, Hiromasa; Kosakai, Shohei

PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan;
 Shin-Etsu Chemical Industry Co., Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11005944	A2	19990112	JP 1997-175214	19970616

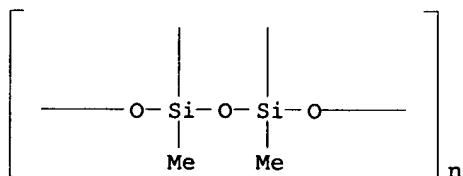
PRIORITY APPLN. INFO.: JP 1997-175214
 19970616

AB Title compns. comprise (meth)acrylate oligomers (A), double bond-contg. reactive diluents (B), photochem. polymn. initiators (C), 0.05-5% (based on 100 parts of total A, B and C) silicone gel spheres with av. diam. of 0.1-5 μ m, and 0.01-5% fluorosilicone surfactants. A compn. comprising a base mixt. (polyoxypropylene-PTMG-TDI copolymer adduct with 2-hydroxyethyl acrylate 70, isobornyl acrylate 20, N-vinylpyrrolidone 10, and an initiator 3 parts) 100, hydrolytic MeSi(OMe)₃ homopolymer spheres (diam. 1.6-2.0 μ m) 3, and a fluorosilicone 0.2 part showed good storage stability at 25° for 3 mo and was spread on a glass plate and irradiated with UV to form a 200- μ m film having good transparency and blocking resistance with dynamic friction coeff. (ASTM D 1894) 0.41 and Young's modulus 95 kg/mm².

IT 153315-80-1P, Methyltrimethoxysilane homopolymer, sru
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 POF (Polymer in formulation); PREP (Preparation); USES (Uses)
 (gel spheres; silicone sphere- and fluorosilicone surfactant-contg. UV-curable acrylic polyurethane coatings for optical fibers)

RN 153315-80-1 HCAPLUS

CN Poly[(1,3-dimethyl-1,3:1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI)
 (CA INDEX NAME)



IC ICM C09D175-16
 ICS C09D004-00; C09D005-00; G02B006-44; C08F290-06; C08L075-16
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 73
 IT 25498-03-7P, Methyltrimethoxysilane homopolymer 153315-80-1P
 , Methyltrimethoxysilane homopolymer, sru
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 POF (Polymer in formulation); PREP (Preparation); USES (Uses)
 (gel spheres; silicone sphere- and fluorosilicone surfactant-contg. UV-curable acrylic polyurethane coatings for optical fibers)

L27 ANSWER 47 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1998:786225 HCAPLUS
 DOCUMENT NUMBER: 130:66950
 TITLE: Organopolysilsesquioxanes containing epoxy
 groups and their manufacture
 INVENTOR(S): Matsuoka, Masaki; Murakami, Masatoshi
 PATENT ASSIGNEE(S): Showa Denko K. K., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10324749	A2	19981208	JP 1997-137191	199705 27

PRIORITY APPLN. INFO.:

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 JP 1997-137191

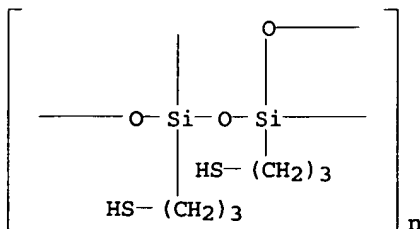
199705
27

AB Title organopolysilsesquioxanes are manufd. by Michael addn. of
 ≥75 mol% end-capped organopolysilsesquioxanes (Mn 5 +
 102 - 1.5 + 104) having SH as all side chains with (A)
 ethylenically unsatd. compds. contg. epoxy groups or (B)
 (1-99):(1-99) (molar ratio) mixts. of A and alkyl (meth)acrylates in
 the presence of radical initiators. Thus,
 γ-mercaptopropyltrimethoxysilane was hydrolyzed, silylated
 with hexamethyldisiloxane, and reacted with glycidyl methacrylate to
 give a silsesquioxane [R₂SiO₃/2] (R = C₃H₆SCH₂CM₂HCO₂G; G =
 glycidyl) end-capped with 20 mol% methoxy and 80 mol%
 trimethylsilyloxy.

IT 167427-18-1DP, γ-Mercaptopropyltrimethoxysilane
 homopolymer, ladder stru, silylated, reaction product with glycidyl
 methacrylate
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PREP (Preparation); USES (Uses)
 (manuf. of epoxy-contg. silsesquioxanes)

RN 167427-18-1 HCAPLUS

CN Poly[[1,3-bis(3-mercaptopropyl)-1,3:1,3-disiloxanediylidene]-1,3-
 bis(oxy)] (9CI) (CA INDEX NAME)



IC ICM C08G077-38
 ICS C08G077-14
 CC 35-8 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 42
 IT 80-62-6DP, Methyl methacrylate, reaction product with
 silsesquioxanes contg. mercapto groups and glycidyl methacrylate
 106-91-2DP, Glycidyl methacrylate, reaction products with
 silsesquioxanes contg. mercapto groups 107-46-ODP,

Hexamethyldisiloxane, reaction products with silsesquioxanes and glycidyl methacrylate 29295-80-5DP, γ -Mercaptopropyltrimethoxysilane homopolymer, trimethylsilyl-terminated, reaction products with glycidyl methacrylate 167427-18-1DP, γ -Mercaptopropyltrimethoxysilane homopolymer, ladder sru, silylated, reaction product with glycidyl methacrylate

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(manuf. of epoxy-contg. silsesquioxanes)

L27 ANSWER 48 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:782013 HCAPLUS

DOCUMENT NUMBER: 130:103942

TITLE: Photosensitive silicone ladder composition, pattern transfer to the composition, and semiconductor device using the same

INVENTOR(S): Hota, Naoki; Yamamoto, Shigeyuki; Adachi, Hiroshi

PATENT ASSIGNEE(S): Mitsubishi Electric Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

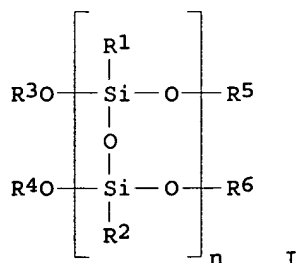
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 10319597	A2	19981204	JP 1997-133602	199705 23
			<--	
PRIORITY APPLN. INFO.:			JP 1997-133602	199705 23
			<--	

GI



AB The compn. contains a silicone ladder resin I (R1, R2 = aryl, H, aliph. alkyl, unsatd. bond-contg. group; R3-6 = H, aryl, aliph. alkyl, trialkylsilyl, unsatd. bond-contg. group; ≥ 1 wt.% of R1-6 is a photosensitive group; $n \geq 1$) and a photosensitive crosslinking agent or a **photoinitiator**. The pattern transfer is performed by **photolithog.** using the resin compn. and the semiconductor device having elec. insulating film obtained from the compn. is also claimed. The compn. is suitable for fine-patterning process with direct light.

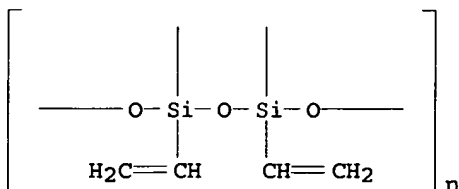
IT 156430-49-8, Vinylsilanetriol homopolymer, ladder sru

218628-60-5

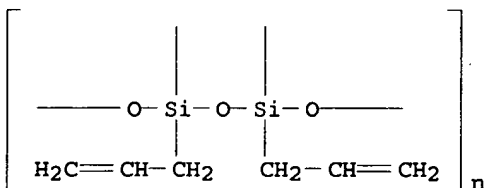
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(photosensitive silicone ladder compn. for pattern transfer by **photolithog.** useful for semiconductor device)

RN 156430-49-8 HCAPLUS

CN Poly[(1,3-diethenyl-1,3:1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI)
(CA INDEX NAME)

RN 218628-60-5 HCAPLUS

CN Poly[(1,3-di-2-propenyl-1,3:1,3-disiloxanediylidene)-1,3-bis(oxy)]
(9CI) (CA INDEX NAME)

IC ICM G03F007-075

ICS C08F002-48; C08F290-14; C08L083-04; G03F007-004; G03F007-028;
H01L021-312

CC 76-14 (Electric Phenomena)

Section cross-reference(s): 74

ST silsesquioxane photoresist elec insulator **photolithog**;

semiconductor device elec insulator ladder siloxane

IT Electric insulators

Photolithography

Photoresists

Semiconductor devices

(photosensitive silicone ladder compn. for pattern transfer by **photolithog.** useful for semiconductor device)

IT Silsesquioxanes

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(photosensitive silicone ladder compn. for pattern transfer by **photolithog.** useful for semiconductor device)

IT 31451-78-2 31451-78-2D, methyl-terminated 156430-49-8,

Vinylsilanetriol homopolymer, ladder sru 157735-56-3,

Phenylsilanetriol-vinylsilanetriol copolymer 189696-43-3D,

 γ -Methacryloxypropylsilanetriol-phenylsilanetriol copolymer,

trimethylsilyl-terminated 202054-77-1 218628-60-5

218628-61-6 218628-62-7D, ethyl-terminated 218628-63-8

218628-65-0D, vinyl-terminated 218628-66-1 218949-39-4

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(photosensitive silicone ladder compn. for pattern transfer by **photolithog.** useful for semiconductor device)

L27 ANSWER 49 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:640312 HCAPLUS
 DOCUMENT NUMBER: 129:261828
 TITLE: Antifouling silicone emulsion coating compositions, manufacture thereof and antifouling articles coated therewith
 INVENTOR(S): Takahama, Koichi; Yamaki, Takeyuki; Inoue, Minoru; Goto, Akiharu; Ikenaga, Junko; Kishimoto, Hirotugu
 PATENT ASSIGNEE(S): Matsushita Electric Works, Ltd., Japan
 SOURCE: PCT Int. Appl., 86 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9841589	A1	19980924	WO 1998-JP1071	19980313
<--				
W: CA, KR, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 10316937	A2	19981202	JP 1998-58665	19980310
<--				
JP 2920140	B2	19990719		
CA 2253504	AA	19980924	CA 1998-2253504	19980313
<--				
CA 2253504	C	20021119		
EP 942052	A1	19990915	EP 1998-907224	19980313
<--				
R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
KR 2000011140	A	20000225	KR 1998-709300	19981114
<--				
US 6221498	B1	20010424	US 1999-180763	19990111
<--				
PRIORITY APPLN. INFO.:			JP 1997-61573	A
				19970314
<--				
			WO 1998-JP1071	W
				19980313

AB The title compns. comprise the following components (A)-(D), with the C content 5-80% based on overall solids in the compn.: (A) a partial hydrolyzate of av. compn. formula $R_2aSiOb(OR_1)c(OH)d$ (R_1, R_2 = hydrocarbyl; a, b, c, d = nos. satisfying $a + 2b + c + d = 4, 0 \leq a < 3; 0 < b < 2; 0 < c < 4; 0 < d < 4$) and having Mw 600-5,000 (polystyrene-equiv.), (B) a nonionic surfactant or an anionic surfactant, (C) a photoconductor, and (D) water. A reactive terminal silanol group-contg. polysiloxane 50% soln. in toluene was prep'd. from methyltrichlorosilane 44.8,

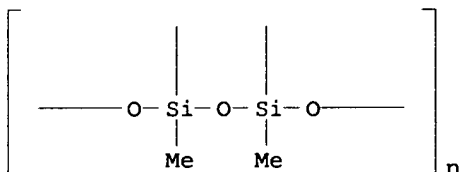
dimethyldichlorosilane 38.7, and phenyltrichlorosilane 84.6 parts, and the soln. (100 parts) was mixed with 5 parts methyltrimethoxysilane and 5 parts dimethyldimethoxysilane and treated dropwise under stirring at 60° with a soln. from 0.6 part dibutyltin dilaurate and 10 parts toluene, further stirred for 40 min, and concd. to obtain a 80%-solids soln. of desired partial hydrolyzate of Mw 2000. The above soln. (50 parts) was treated with 2 parts polyethylene glycol nonylphenyl ether as polymn. initiator, concd. in vacuo under stirring, stirred with 5 parts polyethylene glycol nonylphenyl ether, stirred with 290 parts water, homogenized, and mixed with 10 parts titania aq. dispersion to obtain a coating compn.

IT 153315-80-1P, Methyltrimethoxysilane homopolymer, ladder sru
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(antifouling silicone emulsion coating compns., manuf. thereof and antifouling articles coated therewith)

RN 153315-80-1 HCAPLUS

CN Poly[(1,3-dimethyl-1,3,1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI)
 (CA INDEX NAME)



IC ICM C09D183-06

ICS C08L083-06; C08K003-22

CC 42-10 (Coatings, Inks, and Related Products)

IT 25498-03-7P, Methyltrimethoxysilane homopolymer 111740-14-8P, Butyl methacrylate-trimethoxysilylpropyl methacrylate-glycidyl methacrylate copolymer 153315-80-1P, Methyltrimethoxysilane homopolymer, ladder sru 156940-48-6P, Methyltrimethoxysilane-dimethyldimethoxysilane-tetraethoxysilane copolymer 209261-07-4P, Methyltrichlorosilane-dimethyldichlorosilane-phenyltrichlorosilane-methyltrimethoxysilane-dimethyldimethoxysilane copolymer
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(antifouling silicone emulsion coating compns., manuf. thereof and antifouling articles coated therewith)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 50 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:617534 HCAPLUS

DOCUMENT NUMBER: 127:308066

TITLE: Odorless nontoxic energy beam-sensitive acid generators with good solubility, curable compositions containing them and cured products

INVENTOR(S): Toba, Yasumasa; Tanaka, Yasuhiro

PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 39 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 09241614	A2	19970916	JP 1996-45704	199603 04
PRIORITY APPLN. INFO.:				199603 04

OTHER SOURCE(S): MARPAT 127:308066

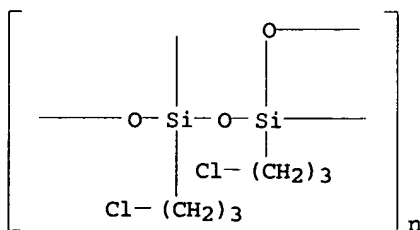
AB The acid generators are obtained from specified arom. onium borate compds. having substituted quaternary N-contg. heterocyclic 5-membered ring cation moieties (which may have a second N, O or S atom at position distant from the 1st N atom such as imidazolium, oxazolium and thiazolium) and fluoro borate anion moieties bearing Ph groups substituted with electron-withdrawing groups, e.g., F, NO₂, CN and azide groups, in place of previously known hexafluorophosphate and hexafluoroantimonate anions. The generators are used in compns. contg. acid-curable compds., and optionally radical-polymerizable monomers, photosensitizers and radical initiators for speeding up their curing under radiation with energy beams. An example of the acid generator was N-benzylthiazolium tetrakis[3,5-bis(trifluoromethyl)phenyl]borate; the mixt. of 1 part of which with 100 parts 3,4-epoxycyclohexylmethyl 3,4-epoxycyclohexanecarboxylate (ERL-4221) could be cured with UV light.

IT 194555-87-8, γ -Chloropropyltrimethoxysilane polymer ladder sru

RL: POF (Polymer in formulation); USES (Uses)
(odorless nontoxic heterocyclic arom. ammonium fluoro borates as energy beam-sensitive acid generators for curing resins)

RN 194555-87-8 HCAPLUS

CN Poly[[1,3-bis(3-chloropropyl)-1,3:1,3-disiloxanediylidene]-1,3-bis(oxy)] (9CI) (CA INDEX NAME)



IC ICM C09K003-00

ICS C08F002-50; C08F004-00; C08G018-16; C08G059-72; C08G063-84; C08G065-10; C08G069-20; C08G073-00; C08G077-08; C07F005-02

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 74

IT 9003-08-1, Melamine resin 9003-44-5, Isobutyl vinyl ether polymer

9003-53-6, Polystyrene 9011-14-7, PMMA 24472-02-4,

1,5,7,11-Tetraoxaspiro(5.5)undecane 24979-97-3

25067-59-8, N-Vinylcarbazole polymer 25085-98-7, ERL 4221

25190-06-1 27790-26-7, Ethylene glycol divinyl ether polymer

28728-97-4, γ -Butyrolactone polymer sru 29611-97-0,

1,4-Butanediol diglycidyl ether polymer 31213-03-3,

γ -Butyrolactone polymer 42993-70-4, 1,4,6-

Trioxaspiro(4.4)nonane polymer 70068-81-4, Diallyl

phthalate-trimethylolpropane tri(thiolglycolate) copolymer

80057-28-9, 4-Ethyl-1-phenyl-2,6,7-trioxabicyclo(2.2.2)octane

homopolymer 82752-41-8, 2-Methyl-1,4,6-trioxaspiro(4.4)nonane
 homopolymer 140197-47-3, Limonene monoepoxide polymer
 163219-73-6, γ -Chloropropyltrimethoxysilane homopolymer
 194293-77-1, 1,4,6-Trioxaspiro(4.5)decane homopolymer 194373-11-0,
 Phenylloxetane homopolymer 194429-21-5, BHPE-3150
 194555-87-8, γ -Chloropropyltrimethoxysilane polymer
 ladder sru

RL: POF (Polymer in formulation); USES (Uses)
 (odorless nontoxic heterocyclic arom. ammonium fluoro borates as
 energy beam-sensitive acid generators for curing resins)

IT 1017-44-3 2797-28-6, **Lithium**
 tetrakis(pentafluorophenyl)borate 16930-55-5 79060-88-1, Sodium
 tetrakis[3,5-bis(trifluoromethyl)phenyl]borate 95475-63-1
 197176-95-7 197177-00-7

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant; reaction in manuf. of energy beam-sensitive acid
 generators)

L27 ANSWER 51 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:509333 HCAPLUS

DOCUMENT NUMBER: 127:206410

TITLE: Sulfoxonium borates as energy-sensitive
 acid-generating agents, their compositions,
 curable compositions using the agents, and
 hybrid curable compositions

INVENTOR(S): Toba, Yasumasa; Tanaka, Yasuhiro; Yasuie,
 Madoka

PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 51 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09194820	A2	19970729	JP 1996-4455	199601 16

PRIORITY APPLN. INFO.: JP 1996-4455

199601
16

OTHER SOURCE(S): MARPAT 127:206410

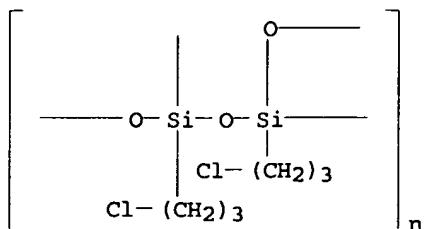
AB Title acid-generating agents R₁R₂R₃S(O)⁺ BYmZn⁻ [R₁ = (substituted)
 C₆-20 aralkyl, (substituted) C₆-20 arylacyl, (substituted) C₂-8
 alkenyl; R₂-R₃ = R₁, (substituted) C₁-18 alkyl, (substituted) C₆-20
 aryl, C₂-8 alkynyl, C₃-10 alicyclic group, (substituted) C₁-18
 alkoxy, (substituted) C₁-18 alkylthio; R₂ and R₃ may form ring; Y =
 F, Cl; Z = Ph substituted with ≥ 2 electron-attractive groups
 selected from F, cyano, NO₂, CF₃; m = 0-3; n = 1-4; m + n = 4] are
 mixed with sensitizers to give title compns. Further claimed are
 (A) curable compns. comprising the described compns. and
 acid-curable compds. and (B) hybrid curable compns. comprising A,
 radically curable compds., and radical initiators. The
 compns. are applicable to various uses, e.g., plastic moldings,
 sealants, photoresists, photosensitive printing plates,
 etc. Thus, 2.4 parts dimethylphenacylsulfoxonium chloride and 6.8
 parts Li tetrakis(pentafluorophenyl)borate were reacted at
 25° for 2 h to give title acid-generating agent, 3 parts of
 which was mixed with 100 parts ERL 4221 (epoxy compds.), applied on
 an Al plate, and UV-irradiated to give a tack-free film.

IT 194555-87-8P

RL: IMF (Industrial manufacture); PREP (Preparation)
(sulfoxonium borates as acid-generating agents for photosensitive curable resin compns.)

RN 194555-87-8 HCAPLUS

CN Poly[[1,3-bis(3-chloropropyl)-1,3:1,3-disiloxanediylidene]-1,3-bis(oxy)] (9CI) (CA INDEX NAME)



IC ICM C09K003-00

ICS C08F004-14; C08F002-48

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 74

IT 75980-60-8, 2,4,6-Trimethylbenzoyl diphenylphosphine oxide

RL: CAT (Catalyst use); USES (Uses)

(radical **initiators**; sulfoxonium borates as acid-generating agents for photosensitive curable resin compns. contg.)

IT 153148-27-7

RL: CAT (Catalyst use); USES (Uses)

(radical **initiators**; sulfoxonium borates as acid-generating agents for photosensitive curable resin compns. contg.)

IT 9003-44-5P, Isobutyl vinyl ether homopolymer 9003-53-6P, Polystyrene 12002-26-5P, Tetramethoxysilane polymer 25067-59-8P, N-Vinylcarbazole homopolymer 25190-06-1P 27790-26-7P 28728-97-4P, Poly[oxy(1-oxo-1,4-butanediyl)] 29611-97-0P, 1,4-Butanediol diglycidyl ether homopolymer 42954-97-2P, 1,5,7,11-Tetraoxaspiro(5,5)undecane homopolymer 42993-70-4P, 1,4,6-Trioxaspiro(4,4)nonane homopolymer 80057-28-9P 82752-41-8P 101008-38-2P 163219-73-6P 194293-77-1P 194353-24-7P 194373-11-0P 194429-21-5P, BHPE 3150 **194555-87-8P**

RL: IMF (Industrial manufacture); PREP (Preparation)

(sulfoxonium borates as acid-generating agents for photosensitive curable resin compns.)

IT 2797-28-6, **Lithium** tetrakis(pentafluorophenyl)borate

80621-31-4, Dimethylphenacylsulfoxonium chloride 153347-65-0,

Lithium tetrakis[3,5-bis(trifluoromethyl)phenyl]borate

RL: RCT (Reactant); RACT (Reactant or reagent)

(sulfoxonium borates as acid-generating agents from)

L27 ANSWER 52 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:509332 HCAPLUS

DOCUMENT NUMBER: 127:206409

TITLE: Energy-sensitive acid-generating agents, their compositions, curable compositions using them, and hybrid curable compositions

INVENTOR(S): Toba, Yasumasa; Tanaka, Yasuhiro; Yasuike, Madoka

PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 09194819	A2	19970729	JP 1996-4454	199601 16
PRIORITY APPLN. INFO.: <div style="text-align: right;"><--</div> JP 1996-4454				199601 16
				<--

OTHER SOURCE(S): MARPAT 127:206409

GI For diagram(s), see printed CA Issue.

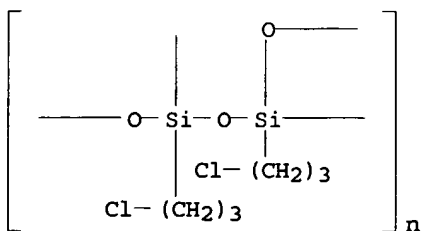
AB Title acid-generating agents are made of aryloxysulfoxonium borate complexes $R_1R_2S(OR_3)(O)+BYmZn-$ [$R_1, R_2 = C_6-20$ aryl; $R_3 = C_6-20$ aryl; R_1-R_3 may be substituted by halogen, OH, NO_2 , cyano, amino, (halogen-substituted) C1-18 linear, branched, or cyclic alkyl, (halogen-substituted) C1-18 linear or branched alkoxy, C6-20 aryl, C6-20 aryloxy, C6-20 aralkyl; $Y = F, Cl$; $Z = Ph$ substituted with ≥ 2 electron-attractive groups selected from F, cyano, NO_2 , CF_3 ; $m = 0-3$; $n = 1-4$; $m + n = 4$] or I ($R_4 = C_4-15$ divalent groups residue of S-contg. heterocycle). Further claimed are (A) compns. contg. the agents and sensitizers, (B) curable compns. comprising A and acid-curable compds., and (C) hybrid curable compns. comprising B, radically curable compds., and radical initiators. The compns. are applicable to various uses, e.g., plastic moldings, sealants, photoresists, photosensitive printing plates, etc. Thus, 4.9 parts diphenylphenoxysulfoxonium perchlorate and 6.8 parts Li tetrakis(pentafluorophenyl)borate were reacted at 25° for 2 h to give title acid-generating agent, 3 parts of which was mixed with 100 parts ERL 4221 (epoxy compds.), applied on an Al plate, and UV-irradiated to give a tack-free film.

IT 194555-87-8P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (aryloxysulfoxonium borates as acid-generating agents for
 photosensitive curable resin compns.)

RN 194555-87-8 HCAPLUS

CN Poly[[1,3-bis(3-chloropropyl)-1,3:1,3-disiloxanediylidene]-1,3-bis(oxy)] (9CI) (CA INDEX NAME)



IC ICM C09K003-00

ICS C09K003-00; C08F002-50; C08F004-14; C08G059-72; C08G063-84;
 C08G065-10; C08G069-16; C08G073-00; C08G077-08; C07F005-02;
 C08F002-48

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 74

IT 9003-44-5P, Isobutyl vinyl ether homopolymer 9003-53-6P,
 Polystyrene 12002-26-5P, Tetramethoxysilane polymer 24979-97-3P
 25067-59-8P, N-Vinylcarbazole homopolymer 25086-25-3P, EHPE 3150
 25190-06-1P 27790-26-7P 28728-97-4P, Poly[oxy(1-oxo-1,4-
 butanediyl)] 29611-97-0P, 1,4-Butanediol diglycidyl ether
 homopolymer 31213-03-3P, γ -Butyrolactone homopolymer
 42954-97-2P, 1,5,7,11-Tetraoxaspiro(5,5)undecane homopolymer

42993-70-4P, 1,4,6-Trioxaspiro(4,4)nonane homopolymer 80057-28-9P
 82752-41-8P 101008-38-2P 163219-73-6P 194293-77-1P
 194353-24-7P 194373-11-0P 194555-87-8P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (aryloxysulfoxonium borates as acid-generating agents for
 photosensitive curable resin compns.)

IT 2797-28-6, **Lithium** tetrakis(pentafluorophenyl)borate
 153347-65-0, **Lithium** tetrakis[3,5-
 bis(trifluoromethyl)phenyl]borate 194469-32-4

RL: RCT (Reactant); RACT (Reactant or reagent)
 (aryloxysulfoxonium borates as acid-generating agents from)

IT 153148-27-7

RL: CAT (Catalyst use); USES (Uses)
 (radical **initiators**; aryloxysulfoxonium borates as
 acid-generating agents for photosensitive curable resin compns.
 contg.)

L27 ANSWER 53 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:509330 HCAPLUS

DOCUMENT NUMBER: 127:206408

TITLE: Energy-sensitive pyridinium borates as
 acid-generating agents, their compositions,
 curable compositions containing the agents, and
 cured products

INVENTOR(S): Toba, Yasumasa; Tanaka, Yasuhiro; Yasuike,
 Madoka

PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 74 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 09194816	A2	19970729	JP 1996-7972	199601 22

PRIORITY APPLN. INFO.:

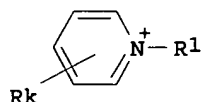
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 JP 1996-7972

199601
22

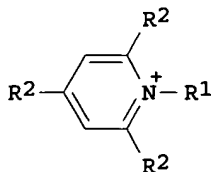
OTHER SOURCE(S):

MARPAT 127:206408

GI



I



II

AB Title agents comprising pyridinium cations I [R1 = benzyl, phenacyl,
 allyl, alkoxy, aryloxy (each may be substituted); R = F, Cl, Br, OH,

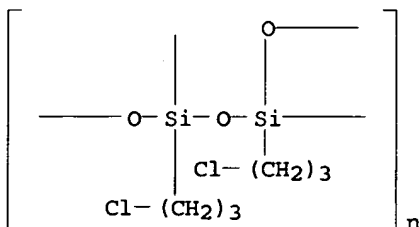
carboxy, mercapto, cyano, NO₂, carbamoyl, C1-18 linear, branched, or cyclic alkyl, C2-18 linear, branched, or cyclic alkenyl, C6-18 monocyclic or condensed polycyclic aryl, C7-18 monocyclic or condensed polycyclic arylalkyl, C1-18 linear, branched, or cyclic alkoxyalkyl, C6-18 monocyclic or condensed polycyclic aryloxy, C1-18 linear, branched, or cyclic aliph. acyl, C7-18 monocyclic or condensed polycyclic arom. acyl, C2-19 linear, branched, or cyclic alkoxycarbonyl, C7-19 monocyclic or condensed polycyclic aryloxycarbonyl (each may be substituted with F, Cl, Br, OH, carboxyl, mercapto, cyano, NO₂, azide); R and R1 may form ring; k = 0-5] and BYmZn- (Y = F, Cl; Z = Ph substituted with ≥2 electron-attractive groups selected from F, cyano, NO₂, CF₃; m = 0-3; n = 1-4, m + n = 4). Alternatively, the cations are pyridinium II and the anions are tetrakis(pentafluorophenyl)borate or tetrakis[3,5-bis(trifluoromethyl)phenyl]borate. Further claimed are (A) compns. contg. the acid-generating agents and sensitizers, (B) curable compns. further contg. acid-curable compds. and optionally radically curable compds. and radical **initiators**, and (C) their cured products, which are applicable to various uses, e.g., plastic moldings, sealing materials, **printing inks**, photosensitive **printing** plates, photoresists, etc. Thus, a mixt. of 100 parts ERL 4221 (epoxy compds.) and 1 part N-benzylpyridinium tetrakis(pentafluorophenyl)borate was UV-irradiated for 5 min to give cured product.

IT 194555-87-8P

RL: IMF (Industrial manufacture); PREP (Preparation)
(pyridinium borates as energy-sensitive acid-generating agents for acid-curable compns.)

RN 194555-87-8 HCAPLUS

CN Poly[[1,3-bis(3-chloropropyl)-1,3:1,3-disiloxanediylidene]-1,3-bis(oxy)] (9CI) (CA INDEX NAME)



IC ICM C09K003-00

ICS C08F002-50; C08F004-00; C08F012-08; C08G059-72; C08G063-08;
C08G065-10; C08G069-16; C08G073-00; C08G077-08; C08L101-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 74

IT 9003-44-5P, Isobutyl vinyl ether homopolymer 9003-53-6P,
Polystyrene 12002-26-5P, Tetramethoxysilane polymer 24979-97-3P,
THF homopolymer 25067-59-8P, N-Vinylcarbazole homopolymer
25085-98-7P 25086-25-3P, EHPE 3150 25190-06-1P 27790-26-7P
28728-97-4P, γ-Butyrolactone homopolymer, sru 29611-97-0P,
1,4-Butanediol diglycidyl ether homopolymer 31213-03-3P,
γ-Butyrolactone homopolymer 70068-81-4P, Diallyl
phthalate-trimethylolpropane tris(thioglycolate) copolymer
101008-38-2P 163219-73-6P 194373-11-0P 194555-87-8P

RL: IMF (Industrial manufacture); PREP (Preparation)
(pyridinium borates as energy-sensitive acid-generating agents for acid-curable compns.)

IT 2797-28-6, Lithium tetrakis(pentafluorophenyl)borate
2876-13-3 16883-69-5, N-Phenacylpyridinium bromide 25357-39-5
79060-88-1, Sodium tetrakis[3,5-bis(trifluoromethyl)phenyl]borate
RL: RCT (Reactant); RACT (Reactant or reagent)

(pyridinium borates as energy-sensitive acid-generating agents

from)
 IT 24650-42-8
 RL: CAT (Catalyst use); USES (Uses)
 (radical **initiators**; pyridinium borates as
 energy-sensitive acid-generating agents for acid-curable compns.
 contg. radically polymerizable components)

L27 ANSWER 54 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:371881 HCAPLUS

DOCUMENT NUMBER: 127:35531

TITLE: UV-curable tape material compositions giving
 transparent antiblocking low-friction cured
 products for optical fibers

INVENTOR(S): Nishimura, Mitsuhiro; Kamimura, Setsu; Kosakai,
 Shohei; Asano, Masatoshi

PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan;
 Shin-Etsu Chemical Industry Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09100326	A2	19970415	JP 1996-143690	199605 14

PRIORITY APPLN. INFO.:

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 JP 1995-216720 A
 199508
 02

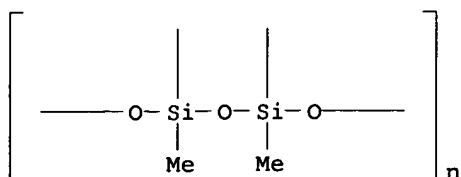
AB Title compns., also useful for coatings, contain (meth)acrylate
 oligomers, polymerizable double bond-contg. reactive diluents,
 photopolymer. **initiators**, and spherical silicone gel
 particles with av. particle size 0.1-5 μ m and whose silanol
 groups are modified. Their cured products are also claimed. Thus,
 2 parts Me3Si-capped spherical poly(methyltrimethoxysilane) granules
 were kneaded with 100 parts a compn. comprising urethane acrylate
 oligomer [manufd. from poly(tetramethylene glycol), 2,4-TDI, and
 2-hydroxyethyl acrylate] 55, SA 1002 (tricyclodecanedimethanol
 diacrylate) 15, M 210 (bisphenol A-ethylene oxide adduct diacrylate)
 10, N-vinylpyrrolidone 10, isobornyl acrylate 10, and
 1-hydroxycyclohexyl Ph ketone 3 parts], cast on a glass plate, and
 irradiated with UV ray to give a transparent antiblocking film with
 dynamic friction coeff. 0.25 and Young's modulus 92 kg/mm².

IT 153315-80-1DP, Methyltrimethoxysilane homopolymer, ladder
 sru, trimethylsilyl- and dimethylphenylsilyl-terminated
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PRP (Properties); TEM (Technical or engineered material use); PREP
 (Preparation); USES (Uses)

(spherical granules; UV-curable tape material compns. contg.
 modified silicone gel particles giving transparent antiblocking
 membranes for optical fibers)

RN 153315-80-1 HCAPLUS

CN Poly[(1,3-dimethyl-1,3:1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI)
 (CA INDEX NAME)



IC ICM C08F290-06
 ICS C08F290-06; C09J004-00; C09J004-02; G02B006-44
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 42, 73
 IT 999-97-3DP, Hexamethyldisilazane, reaction products with methyltrimethoxysilane homopolymer 20180-31-8DP, reaction products with methyltrimethoxysilane homopolymer 25498-03-7DP, Methyltrimethoxysilane homopolymer, trimethylsilyl- or dimethylphenylsilyl-terminated 153315-80-1DP, Methyltrimethoxysilane homopolymer, ladder stru, trimethylsilyl- and dimethylphenylsilyl-terminated
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (spherical granules; UV-curable tape material compns. contg. modified silicone gel particles giving transparent antiblocking membranes for optical fibers)

L27 ANSWER 55 OF 55 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:280822 HCAPLUS

DOCUMENT NUMBER: 126:264801

TITLE: Transparent film-forming urethane acrylate oligomer compositions with good blocking resistance and lubricity

INVENTOR(S): Kosakai, Shohei; Asano, Masatoshi; Iguchi, Yoshinori

PATENT ASSIGNEE(S): Shinetsu Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

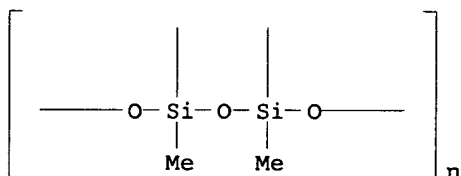
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09048920	A2	19970218	JP 1995-216721	19950802
			<--	
JP 3139944	B2	20010305		
PRIORITY APPLN. INFO.:			JP 1995-216721	19950802
			<--	

AB Title compns. contain curable org. resin and spherical silicone gel particles (mean particle diam. 0.1-10 µm) with blocked surface silanol groups. Thus, a urethane acrylate oligomer 55 (prepd. from PTMG-2000 150, PTMG-1000 150, neopentyl glycol 31.6, 2,4-TDI 175.4, BHT 0.15, dibutyltin laurate 0.08, and 2-hydroxyethyl acrylate 119.3g), SA-1002 15, M-210 10, N-vinylpyrrolidone 10, isobornyl acrylate 10, and 1-hydroxycyclohexyl Ph ketone 3 parts were blended to form a UV-curable resin compn. (8500 cP, 25°), 100 parts of which was blended with 2 parts hexamethyldisilazane-treated methyltrimethoxysilane polymer particles (mean particle diam.

1.6-2.0 μ m), coated on a glass plate, and UV-irradiated to give a film showing dynamic friction coeff. 0.32 (25°, 50%).

- IT 153315-80-1DP, Methyltrimethoxysilane homopolymer, ladder
 sru, trimethylsilyl- or dimethylphenylsilyl-terminated
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 TEM (Technical or engineered material use); PREP (Preparation); USES
 (Uses)
 (transparent film-forming urethane acrylate oligomer compns. with
 good blocking resistance and lubricity)
- RN 153315-80-1 HCAPLUS
- CN Poly[(1,3-dimethyl-1,3:1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI)
 (CA INDEX NAME)



- IC ICM C08L101-00
 ICS C08K007-16; C08L083-04
- CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 38, 42
- IT 947-19-3, 1-Hydroxycyclohexyl phenyl ketone
 RL: CAT (Catalyst use); USES (Uses)
 (photopolymerization initiator; transparent film-forming
 urethane acrylate oligomer compns. with good blocking resistance
 and lubricity)
- IT 25498-03-7DP, Methyltrimethoxysilane homopolymer, trimethylsilyl- or
 dimethylphenylsilyl-terminated 153315-80-1DP,
 Methyltrimethoxysilane homopolymer, ladder sru, trimethylsilyl- or
 dimethylphenylsilyl-terminated
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 TEM (Technical or engineered material use); PREP (Preparation); USES
 (Uses)
 (transparent film-forming urethane acrylate oligomer compns. with
 good blocking resistance and lubricity)

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